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Be prepared to sit at the table: a campus wide interprofessional program

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Doctoral Project

BE PREPARED TO SIT AT THE TABLE:

A CAMPUS WIDE INTERPROFESSIONAL PROGRAM

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DEDICATION

I dedicate my dissertation work to my family and friends who have supported me throughout this process. A special feeling of gratitude to my loving parents Skip and Kathy who best taught me that happiness is embracing big dreams. To Kyle, my future husband, thank you for being my rock, always there to ground me, while allowing me space to spread my wings and make an impact on this world. Finally, I dedicate this work to my grandfather who taught me that knowledge is power and education is something which no one can ever take away.

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ABSTRACT

Interprofessional education (IPE), an educational concept that occurs when health care professionals from various disciplines learn about, from and with each other could ultimately enrich patient care, through use of collaborative strategy and synergistic learning between health care professions (Darlow et al., 2016). Evidence supports provision of IPE programming for occupational therapy and other healthcare student disciplines, in order to attain the diverse skill set required to effectively and efficiently communicate within an interdisciplinary healthcare team, and ultimately, to improve quality of patient care. The use of IPE in professional level healthcare education has been shown to improve students' collaborative knowledge, skills and behavior, leading to effective task delegation (Riskiyana et al., 2018), ethical problem solving skills, and understanding of the professional roles and responsibilities required to promote efficiency in effective communication and teamwork skills (Gee et al., 2016). Despite literature supporting the justification for implementation of evidence-based IPE programs across institutions nationally, professional healthcare programs lack consistency and follow through. Diversity within IPE programming (Zahl et al., 2016) will allow for flexibility in planning and implementation of student experiences, which promote high-quality patient

health care and strengthened collaborative workplace practices (O'Hara et al., 2018). With this heightened flexibility, interprofessional learning can transpire in larger student numbers, comprised of diverse healthcare disciplines, through platforms including online learning (O'Hara et al., 2018), clinical workplace supervision (Lawlis et al., 2016), and community based service learning experiences (Zahl et al., 2016). In order to investigate which interprofessional exercises and learning tools are perceived to be most effective an evidence-based, three-phase model curriculum, has been designed to be implemented across occupational therapy and other healthcare programs, in order to promote preparedness of professional level healthcare students as interdisciplinary team members. An entire cohort of master occupational therapy students will be recruited to participate in this three-phase IPE program, which will be embedded within the curriculum. Research will utilize a quasi-experimental design, using pre and post survey testing to measure the dependent variables of interest. Results will indicate students' perception on which IPE tools/activities were most effective in preparing them for participation as an interdisciplinary team member, as well as produce evidence to support use of effective IPE tools/activities, to adequately prepare occupational therapy students for an interdisciplinary team based approach to practice. This educational program addresses a gap in knowledge and experience of interdisciplinary healthcare educators. Further collaboration and research from interdisciplinary healthcare educators is needed to attain data to support *best practice* in program development, as IPE falls within both the professional and ethical responsibility of occupational therapy and healthcare educators (American Occupational Therapy Association [AOTA], 2015).

TABLE OF CONTENTS

ACKNOWLEDGMENTS v

ABSTRACT vi

TABLE OF CONTENTS viii

LIST OF TABLES ix

LIST OF FIGURES x

CHAPTER ONE 1

CHAPTER TWO 8

CHAPTER THREE 32

CHAPTER FOUR 43

CHAPTER FIVE 53

CHAPTER SIX 62

APPENDIX A 72

APPENDIX B 74

APPENDIX C 77

APPENDIX D 90

APPENDIX E 91

APPENDIX F 92

APPENDIX G 94

BIBLIOGRAPHY 102

CURRICULUM VITAE 108

LIST OF TABLES

Table 3.1. Evaluation questions relevent to stakeholders 45

Table 5.1. Local Resources 55

Table 5.2. Year 1 Expenses 58

Table 5.3. Potential Funding Opportunites. 59

Table 6.1. Dissemination Budget. 70

LIST OF FIGURES

Figure 3.1.Simplified Logic Model 48

CHAPTER ONE:

Introduction

Nature of the Gap, Shortcoming, or Need

Despite emerging evidence to support its effectiveness, use of evidence-based, interprofessional education (IPE) programs within occupational therapy professional level education continues to be limited. Historically, the trajectory of the occupational therapy profession has experienced an ebb and flow, fluctuating in terms of scope and struggling to establish a conclusive identity. As the profession matured, lack of published literature to support evidence-based practice (EBP) threatened the integrity of skilled occupational therapy services. As described by Wood (2004), the profession of occupational therapy, as well as, "any field claiming professional stature must be just as dedicated to cultivating its mind as it is to nourishing its heart, as the two are wonderfully symbiotic" (p. 252). Moyers et al. (2014) suggests that use of EBP models within occupational therapy professional level education is crucial, however modern day challenges in healthcare present the need to shift from siloed, disciplinary-focused practice to tackling patient problems with a collaborative, holistic team approach to care. Interprofessional education (IPE) is defined as an educational effort that "occurs when health professionals from more than one profession learn about, from, and with each other" (Darlow et al., 2016, p. 355). As depicted by de Vries-Erich et al. (2017), modification of professional health education curriculum, in reference to an interprofessional perspective, could ultimately enhance patient care. According to

Riskiyana et al. (2018), objective measurements indicate that IPE initiatives within professional level healthcare education improve student academic outcomes in areas including professionalism, ethical and clinical decision making, role competency, ability to delegate a task, awareness of and collaborative interdisciplinary team communication and an overall client-centered approach to care. Professional healthcare curriculum, with emphasis on collaborative strategy and synergistic learning between healthcare professions, will directly affect collaborative team communication and ultimately decrease harm to patients (de Vries-Erich et al., 2017).

Statement of the Problem to be Addressed

The purpose of this doctoral project is to design a three-phase, evidence based interprofessional education program to promote perceived preparedness master occupational therapy students. Additionally, this doctoral project is designed to produce evidence to support use of effective interprofessional education activities as a method to adequately prepare occupational therapy students for an interdisciplinary team based approach to practice. The author of this project seeks to understand what learning tools and/or activities do occupational therapy students perceive to be most effective in preparing them for participating as an interdisciplinary team member.

The scope of the above stated problem spans the occupational therapy profession, requiring increased research on *best practice* in program development, as IPE falls within both the professional and ethical responsibility of occupational therapy and healthcare educators. Providing opportunities for effective collaboration with multiple disciplines

allows for a holistic client-centered approach to care, improving the quality of client care and reducing costs (AOTA, 2015). Nationally, The Accreditation Council for Occupational Therapy Education [ACOTE] (2018) has published academic standards which describe requirements for interprofessional collaboration. Standard B.4.23, describes the academic requirement for students within master OT programs to be effective in their ability to communicate with the client, their family, and all members of the collaborative interprofessional healthcare team, in order to promote overall health and wellness (ACOTE, 2018). Standard B.4.25, characterizes master OT student requirements for competence in the area of interprofessional team dynamics, including effective and efficient team collaboration, for thorough and equitable client care from evaluation through discharge (ACOTE, 2018).

Interprofessional education is intended to impact quality of patient care on a global scale, providing opportunities to promote collaborative, interdisciplinary communication and teach skills to ensure healthcare continuity among disciplines. As indicated by Mu et al. (2004), interdisciplinary collaboration in healthcare directly impacts rural geographic locations, where restricted resources and a finite number of healthcare professionals, force disciplines to work together, in order to effectively address the dynamically complicated components of individualized patient care. Another gap that interprofessional education intends to address is the limited knowledge and awareness of other healthcare professionals' roles and their scope of practice. Mu et al. (2004) stated, "health care professionals often lack adequate training in understanding the complexities and contributions of varied healthcare providers, lack adequate training in

interprofessional skill, and tend to preserve traditional role concepts and territoriality concerns" (p. 125). In addition to its impact on quality and outcomes of patient care, IPE directly affects occupational therapy and other healthcare students. Lack of best practice in IPE and campus wide acceptance of initiatives may result in a future clinician who has limited insight into the scope of their professional role and subsequently less prepared for interprofessional team collaboration, leading to disjointed communication efforts and an ultimate increase in healthcare costs (de Vries- Erich et al., 2017).

The importance of interprofessional education goes far beyond the confines of any one institution. As indicated within the Accreditation Council for Occupational Therapy Education Standards and Interpretive Guide, master occupational therapy students must be proficient in role competency in order to effectively collaborate through communication with the interdisciplinary healthcare team (ACOTE, 2012). In regards to the domains of occupational therapy practice, Principle 6 of the Occupational Therapy Code of Ethics addresses fidelity and interprofessional education. As described by the AOTA (2015), occupational therapists are obliged to promote interprofessional team interaction which is collaborative, in order to optimize communication and facilitate safe and quality patient care. In higher education, the mission, vision and core values of most academic institutions broadly illustrate institutional commitment, describing innovative environments and illustrating wide opportunities for learning. At Le Moyne college, a Jesuit institution, the mission and vision of the college relate to social justice and other core Jesuit tenets such as *cura personalis*, which means care and development of the whole person, mind, body and soul. *Cura personalis*, directly aligns with institutional

initiatives for interprofessional education, emulating a collaborative team approach to holistic education through care and development of the whole person.

Key factors primarily responsible for lack of standardized administration of interprofessional education within professional level graduate education include limitations in institutional support, a disjointed vision, and lack of leadership. Sustainability of programming is another key contributor to the above stated problem. In order to ensure IPE program longevity, key stakeholders must be willing to discuss institutional commitment and a dedicated budget line. Commitment of time and willingness of professional program participation will also be necessary to foster interprofessional initiatives. Healthcare programs must be willing to omit or condense current curricular content to establish time for interprofessional programming. Finally, continuity of programming may be affected by student presence, engagement and perceived value (Cullen, Fraser & Symonds, 2003).

Description of Proposed Program

This doctoral project is composed of a three-phase, campus wide interprofessional education program, encouraging attendance of students from disciplines including occupational therapy, physician assistant, nurse practitioner, registered nurse and family nurse practitioner. Programming will take place annually, with each phase administered throughout the academic year. Phase one will place students at interdisciplinary round tables. Various interdisciplinary case scenarios will be distributed and assigned facilitators will guide table discussion. Guiding questions will promote competency in the

students professional healthcare role, as well as facilitate understanding of other health profession roles. The second component is a one-credit introduction to interprofessional education and development course, which will introduce students to the current healthcare landscape, while facilitating social exchange of ideas among different disciplines (Wilson, Fabri & Wolfson, 2012). Students will gain valuable perspective on interprofessional communication within various healthcare settings to increase comfort level, and ability to work as an interprofessional team member. Phase three of the IPE program presents a team structured clinical examination (TOSCE), which will be utilized to reinforce student role competency and use of a multidisciplinary ethical approach to clinical decision making (Cullen, Fraser & Symonds, 2003). Students will be placed in interdisciplinary teams, and provided a completed evaluation for a standardized client. The student healthcare team will then respectfully communicate to determine how to intervene appropriately, in order to promote health and prevent further disability or disease.

Goals of Doctoral Project

This doctoral project proposes to address this problem by designing a three-phase campus-wide IPE program, which will increase professional students' perceived preparedness to work collaboratively on interdisciplinary teams. To do so, increased evidence is required to support *best practice* within IPE program choices. Outcomes will be measured using both qualitative and quantitative data, based on the student's self-reported abilities and their perception of preparedness as an interdisciplinary team

member, as related to their fieldwork experiences. A convenience sample of OT students in a single cohort will complete pre- and post-test surveys, to measure learning objectives within all three program phases. Ultimately, use of evidence to establish the design of IPE exercises will promote use of EBP within professional level health education, and achieve outcomes which support provision of the skill set necessary, to effectively serve as a collaborative member of an interdisciplinary team.

Conclusion

Despite literature supporting the justification for implementation of evidence-based IPE programs across institutions nationally, professional healthcare programs lack consistency and follow through. The intent of this doctoral project is to investigate through research, what learning tools and/or activities are perceived to be most effective. Additionally, the purpose of this doctoral project is to provide an evidence-based model curriculum that could be implemented across other healthcare programs, in order to promote preparedness of professional level healthcare students as interdisciplinary team members.

CHAPTER TWO:

Theoretical and Evidence Base to Support the Proposed Project

Introduction and Overview of the Problem

Use of evidence-based practice (EBP) models within OT professional level education is crucial, however current challenges present the need to shift from emphasizing disciplinary-focused practice to tackling patient problems with a client-centered holistic team approach to care (Moyers, Guthrie, Swan, & Sathe, 2014). Interprofessional education (IPE), an educational concept that occurs when health care professionals from various disciplines learn about, from and with each other could ultimately enrich patient care, through use of collaborative strategy and synergistic learning between health care professions (Darlow et al., 2016).

While research indicates that IPE efforts improve student outcomes, factors such as institutional support, financial sustainability, and willingness of institution-wide professional program involvement varies. Established programs typically lack the flexibility to condense curricular content, in order to clear time for additional programming. Despite faculty and staff scheduling efforts, engagement and perceived value of IPE by the student can also present a barrier. If initiatives are introduced too far into the professional program's curriculum, students' professional attitudes may become habituated and firmly established (Cullen, Fraser & Symonds, 2003).

An educational program is proposed to offer campus-wide IPE initiatives. The program will facilitate opportunities for occupational therapy, physician assistant, nurse practitioner and family nurse practitioner students to communicate and problem solve, while promoting preparedness in role competency, collaborative communication, awareness toward team dynamics and an overall client-centered approach to healthcare (Riskiyana et al., 2018). A pathway illustrating how a three-phase IPE program might promote successful student learning, patient outcomes, and satisfaction of required accreditation standards is included in Appendix A.

It can be assumed that by embedding evidence-based IPE programming into professional healthcare curriculum, students participating will have increased preparedness for an interdisciplinary team based approach to clinical practice. Across disciplines, students will work together to effectively recognize the dynamically complicated components of individualized client care and to identify solutions on a broader spectrum than if they were working within a group of peers from their own discipline (Wilson, Fabri & Wolfson, 2012). Finally, it is hypothesized that Accreditation Council for Occupational Therapy Education [ACOTE], 2018), standard B.4.25, which emphasizes requirement of effective communication and collaboration interprofessionally through student knowledge " … of the principles of interprofessional team dynamics to perform effectively in different team roles to plan, deliver, and evaluate patient-and population-centered care as well as population health programs and policies that are safe, timely, efficient, effective, and equitable" (p. 32) will be satisfied.

Theoretical Base to Solving the Problem

Despite emerging literature to support its effectiveness, consistent use of evidence-based interprofessional education (IPE) activities within occupational therapy professional level education continue to be limited. Because of this, graduate students' perceived preparedness as interdisciplinary team members, is an area that also requires additional research. The Complexity theory is a framework proposed to examine and appraise the dynamic components of interaction and to provide tools to respond to challenges that present during implementation (Barr, 2013). Recognizing a continuous interrelation of complex components and interprofessional team interaction, the Complexity theory is able to assist in further examination of how a student within a professional healthcare program, such as occupational therapy, will learn and change in response to interprofessional education (Sargent, 2009).

Use of the Complexity theory to guide IPE toward a more diversified thought process is described through comparison of the theory's key principles to the primary problem of this proposed research. The Complexity theory validates the correlation of interaction between complex system components and their surrounding context, as well as the impact of these interrelated parts on an individual's behavior (Sargent, 2009). Complex system components within the problem of this proposed research are represented by the required skill set of the interdisciplinary healthcare team member and the surrounding context is the chosen occupational therapy practice setting. Combined, the required skill set as a team member and the demand of a particular practice setting

will substantially impact students' behavior, and therefore their perceived preparedness.

According to Sargent (2009), we must remain aware that complex systems consist of various components and to understand the complexity of these components, we must dedicate time toward observation of their dynamics. Though literature indicates, at the institutional level, IPE engagement can improve student outcomes, program design and enrollment are composed of many complex factors. In order to promote consistency in interprofessional programming, factors such as institutional support, financial sustainability, and institution wide professional program involvement, must remain consistent. As described within the Complexity Theory, interactions between components are inconsistent and non-linear. This theoretical perspective emphasizes that observed actions can change and are contingent upon the state of the components at any given time (Sargent, 2009). Directly corresponding, this research study's proposed program is designed to optimize institution wide IPE among professional level healthcare education through didactic, discussion-based and clinical components. It is quite likely that over time this institutional interprofessional program design will transition, as trends and/or standards of accreditation for the profession will shift. Finally, Sargent (2009) explains that according to the Complexity Theory, interactions between components will likely generate new and emergent behaviors and these behaviors cannot be predicted. As current healthcare practice and policy evolve, new trends will inevitably begin to emerge.

Evidence-base for Use of Interprofessional Education within Professional Level Healthcare Education

Importance

The benefits of interprofessional education for improved client outcomes has been well documented (de Vries-Erich et al., 2017). In addition to client outcomes, research indicates that IPE initiatives improve students' interprofessional collaborative knowledge, skills, and behavior, leading to effective task delegation, improved role competence and an overall increased preparedness as an interdisciplinary team member (Riskiyana et al., 2018). Embedding EBP into professional level healthcare curricula will improve consistency and effectiveness of IPE within MOT education. Standardized interprofessional programming will contribute to increased students' preparedness to work on an interdisciplinary team, while practicing a holistic approach to clinical care (Wilson, Fabri & Wolfson, 2012). Using an interdisciplinary approach across disciplines, research indicated students will work together to effectively recognize the dynamically complicated components of individualized patient care and to identify solutions on a broader spectrum than if they were working within a group of peers from their own discipline (Cullen, Fraser & Symonds, 2003).

Definition

The World Health Organization defines interprofessional education (IPE) as an educational concept that "occurs when two or more health care professions learn about, from and with each other, to enable effective collaboration and improve health outcomes"

(as cited by Moyers & Finch-Guthrie, 2016, p. 4). Evidence indicates that student healthcare team outputs are enhanced through comprehension of their own professional roles (Virant-Young et al., 2014). In addition to role competency, efficient and effective communication strategies and respect for the expertise of other disciplines is cultivated through collaborative interprofessional education (Virant-Young et al., 2014).

Effective Strategies: Program Planning and Development

Substantial published literature exists to guide planning and development of effective strategies to support interprofessional education (IPE) programming. Planning for interprofessional programming begins by analyzing accreditation requirements (Virant-Young et al., 2014). Historically IPE in the United States has proved to be cyclical (Clark, 2012), and despite literature indicating the need for IPE within higher education, institutions continue to struggle with prioritization of programming and accountability in the provision of standardized curricula (Virant-Young et al., 2014). According to Long, Schwarz, Conner-Karr, Cada and Hogan (2014), government support and funding for community-based programming has pushed accrediting bodies toward requirements for IPE as part of professional health curricula, pressuring senior administration within higher education to revise strategic initiatives (Long et al., 2014), and begin to mobilize toward change (Clark, 2012). Current lack of mandate and unclear specification of accreditation standards for many healthcare professions, limits the necessity of institutional endorsement (Virant-Young et al., 2014), slowing the desired degree of IPE implementation institution wide (Long et al., 2014). Use of a

Transtheoretical Model (TTM), or a complexity viewpoint to guide a deliberate institutional plan for change (Clark, 2012), promotes intentional development of a professional culture supporting interprofessional collaborative care (Long et al., 2014), and improving consistency in program implementation (Virant-Young et al., 2014). According to Clark (2012), primary institutional mobilization encourages a structured strategic vision for institution-wide IPE, while assembling personnel with expertise to creatively develop programming (Long et al., 2014). As mobilization continues, interprofessional strategies will likely begin to challenge institutional culture (Clark, 2012), demonstrated by a silo mentality within different healthcare departments (Long et al., 2014). As curricular changes are introduced, incentive can help to promote reciprocity (Clark, 2012), increasing respect and acknowledgement between key faculty and administrative players (Virant-Young et al., 2014). Institutionalization of IPE requires incorporation and sustainability, by embedding IPE vision and strategy into institutional culture (Clark, 2012). Senior administrative support, a flexible vision (Clark, 2012) for the ever-evolving process (Virant-Young et al., 2014), collaboration in activities (Long et al., 2014), and visible action (Clark, 2012) are strategies both necessary and effective in supporting IPE.

Effective Strategies: Teaching in Adult Education. Over the past two decades, access to the internet has been increasingly utilized to promote information accessibility, sharing, and collaboration (Halpern & Tucker, 2014), while facilitating student interaction across a global context (Aldrich & Peters, 2019). Literature indicates that adult learners characterized as 25 years and older, are a growing demographic who learn

differently and most effectively through an autonomous distance learning platform (Halpern & Tucker, 2014). Use of Knowles Adult Learning Theory to guide planning, development and implementation of adult learning courses, facilitates incorporation of learner self-concept and role competency, through synchronous interaction (Aldrich & Peters, 2019), promoting instructor acknowledgement of the student's life experience (Halpern & Tucker, 2014). Knowles' Adult Learning Theory allows an opportunity for the student to gain a broader understanding of themselves and their peers (Aldrich & Peters, 2019), by promoting instruction in content which is particularly applicable to the adult learner (Halpern & Tucker, 2014), leading to a deeper understanding and ability to apply principles to appropriate contexts (Aldrich & Peters, 2019). Finally, application of The Constructivist Learning principles, which perceive learning as a social and reflective process, encourages student-centered education through experiential learning strategies, emphasizing core constructs as applicable to real life scenarios (Halpern & Tucker, 2014). In order to remain current, healthcare professionals require annual continued competency. Myers (2019) illustrated Knowles' Adult Learning Theory, through continuing competency offered through an online learning platform (Aldrich & Peters, 2019). Guided by Constructivist concepts, learners asynchronously utilized various learning tools to illustrate core concepts, and applied them to real life healthcare scenarios (Halpern & Tucker, 2014).

Effective Strategies: Student Learning. Evidence indicates that interprofessional practice within professional level programs prepares healthcare students to be clinicians by encouraging collaborative interdisciplinary communication, promoting

role competency and efficient team interaction, which allows for a comprehensive and holistic approach to client care (Shoemaker, Beasley, Cooper, Perkins, Smith & Swank, 2011). Less clearly identified within literature, is how to train new healthcare professionals (Dosser et al., 2001), while effectively disseminating, translating, and implementing a collaborative care model (Testa, Savoia & Su, 2018), and further training graduates to meet the needs of external constituencies (Dosser et al., 2001). Though multiple instructional methods can effectively be utilized to design an interprofessional education program, literature indicates that role modeling is one effective strategy (Dosser et al., 2001). An interdisciplinary team-taught didactic interprofessional practice course affords students the opportunity to observe instructors modeling collaborative communication and interaction (Dosser et al., 2001), while illuminating practice philosophy, which may differ substantially among the various healthcare professions (Shoemaker, Beasley, Cooper, Perkins, Smith & Swank, 2011). Aspects of interprofessional collaboration can be addressed through teaching modes including didactic presentation, role-play, small group discussion (Dosser et al., 2001), and through media review of assigned case studies, followed by a faculty led debriefing to extract core concepts (Shoemaker et al., 2011). Andragogy principles support distance learning, through self-paced, web-based interactive and collaborative learning (Testa, Savoia & Su, 2018), in order to decrease gaps associated with lack of access, while emphasizing participation in a virtual context and capturing interest from non-traditional learners (Dosser et al., 2001). In order to provide the necessary supplementation for didactic learning in healthcare (Dosser et al., 2001), and facilitate development of clinical skill

set, standardized patient simulation, described by Shoemaker et al. (2011), is used as an innovative teaching method. Immediate feedback from a trained standardized patient in combination with a faculty debriefing, informs students on efficiency in role sharing during evaluation, ease of transition into intervention and completion of the session without conflict (Shoemaker et al., 2011), reinforcing the attitudes, values, and behaviors necessary for interdisciplinary practice (Dosser et al., 2001). To effectively facilitate IPE, learning objectives must be deliberately selected to promote collaborative learning regardless of the teaching modality (Shoemaker et al., 2011). Objectives should include a concentrated focus on the interdisciplinary team approach to patient care, while softening professional role boundaries (Dosser et al., 2001), and driving students to consider how to effectively negotiate professional relationships, crucial to daily practice (Shoemaker et al., 2011).

Interprofessional Perspectives: Enrichment of Patient Care. Current evidence indicates a correlation between human error and patient safety (Wilson et al., 2012), indicating need for a comprehensive team-based approach to client care. Within specialty areas of healthcare, medical professionals provide a unique area of expertise to support patient health (Polti et al., 2011); however, in order to provide comprehensive and continuous care, interprofessional teams are imperative (Alexander et al., 2015). Inevitably, holistic patient care cannot be provided solely by the physician (Wilson et al., 2012), as specialists most often prescribe guidelines as applied to only their own discipline (Polti et al., 2011). Diminished follow through leaves patients to integrate and manage various providers' recommendations (Polti et al., 2011). Wilson et al. (2012)

argued that a systems approach to healthcare would exponentially decrease the occurrence of adverse events related to patient safety, improving communication among disciplines and increasing respect of heterogeneous knowledge (Alexander, 2015). Across the healthcare continuum, breakdown in communication can occur at any time, leading to a lapse in medical care and negative patient outcomes. As age increases, patient health declines, comorbidities and complexity of diagnosis increases, and the dynamic needs of the patient change (Polti et al., 2011). Alexander et al. (2015), described the benefits of a global interprofessional team approach, using a diverse social exchange among disciplines (Wilson et al., 2012), to identify both symptomatic and asymptomatic patient needs at any given time throughout the continuum of care. Though ample literature exists on patient safety, healthcare professionals typically gain qualification in patient safety through exposure and clinical experience; however Alexander et al. (2015) asserted that authentic interprofessional teamwork continues to be a novel concept in most healthcare settings. Competency in patient safety and collaborative communication exceeds the capacity of what can be provided institutionally, within siloed academic units (Wilson et al., 2012), due to lack of instruction and facilitation of multidisciplinary assessment and management (Alexander et al., 2015). Thus, opportunity must be purposefully established in order for professional level students to be able to cultivate knowledge and apply patient safety principles to practice (Wilson et al., 2012).

Barriers to Institutional Involvement. Though ample evidence exists to support a positive correlation between a team-based collaborative healthcare approach and

improved patient care (Michalec, Giordano, Pugh, Arenson & Speakman, 2017), many institutions continue to deliver a common didactic foundation without interprofessional interactive learning opportunities (West et al., 2016), teaching future providers to work independently, using siloed knowledge and training (Michalec et al., 2017). Students within professional health programs must be educated in teams, using strategies which include implementation of a common curriculum across healthcare programs (Michalec et al., 2017), integration of interprofessional modules into existing coursework, and participation in team-based simulated learning experiences (West et al., 2016). Despite availability of validated measures to assess outcomes, lack of applicability across the spectrum of healthcare disciplines, leads to reduced national acceptance across institutions (West et al., 2016). Administrative support and acceptance, often uncertain (West et al., 2016), has a direct impact on program funding and institutional acceptance (Hughes et al. 2019), therefore affecting long-term interprofessional program sustainability. Phenomenologically, current research examined student perception of IPE programming, revealing increased student concern with workload associated with IPE and an overall lack of accountability for their work (West et al., 2016), suggesting the likelihood of limited faculty knowledge and experience with instructional IPE methods (Hughes et al., 2019). According to Hughes et al. (2019), though most faculty identify the need for and support IPE, limited knowledge outside of their own discipline and awareness of required time commitment, impedes institution wide implementation and ultimately cultural adoption of teamwork and collaborative practice (Michalec et al., 2017).

Conclusion

The future of IPE has a high priority, with growing standards for professional level healthcare education striving to improve patient outcomes and enrich care. IPE falls within both the professional and ethical responsibilities of healthcare providers (American Occupational Therapy Association [AOTA], 2015). Modern professional program curricula must prepare healthcare students to cultivate emergent behaviors beyond just capability, addressing competence in the students' ability to adapt, generate new knowledge and to continuously build on improving their performance (Barr, 2013). Lack in program consistency and implementation of evidence-based interprofessional programming, negatively affects professional healthcare programs on a national basis. *Best practice* in interprofessional education requires increased research in order to promote effective and efficient program development.

Evidence-base for Effective Interprofessional Education Programs

Introduction

Professional healthcare students engage in interprofessional education (IPE) within educational institutions nationwide. Since its inception, educators have implemented IPE through a variety of modes, used to improve student skill sets necessary for holistic interdisciplinary team communication and collaboration (Gee et al., 2016). Miscommunication between healthcare professionals generates approximately 80% of serious medical errors (Zahl, Greenwood, Ramella, Sullivan & Wilder, 2016). Literature

supports use of an interprofessional approach to enhance client-centered care by decreasing duplicative services, conflicting care plans and eliminating care that might not have been necessary (Moyers & Finch-Guthrie, 2016). Despite emerging evidence, consistent professional standards of competence across disciplines are lacking for interprofessional collaborative practice.

Interprofessional Program Effectiveness

Professional healthcare students engage in interprofessional education (IPE) within educational institutions and universities nationwide. Since its inception, educators have implemented IPE through a variety of strategies designed to build the skill set necessary for professional healthcare students to effectively work on interdisciplinary teams (Gee et al., 2016). From team-based case scenarios to simulated interprofessional encounters, use of standardized patients and faculty guided reflection, interprofessional exercises have been utilized across educational institutions to supplement didactic course content and ultimately to prepare future healthcare clinicians for the modern day healthcare landscape (Gee et al., 2016). Large-scale interprofessional programming designed to include interactive student break out groups and discussion of various patient discharge cases, has yielded positive outcomes in regards to student perception of the value, benefit, and importance of an interprofessional collaborative approach when implemented early enough within their curriculum (Gee et al., 2016). Hands-on practical skill training and measurement of competency occurring through use of a Team Objective Structured Clinical Examination (TOSCE) (Lie, Richter-Lagha, Forest, Walsh &

Lohenry, 2017), has been used to employ problem based and cooperative learning approaches during standardized patient simulations and to provide an authentic and practical experience for professional healthcare students (Solomon & Salfi, 2011). Standardized patients were briefed prior to the interprofessional exercise in order to accurately represent a client with a specified condition (Lie, Richter-Lagha, Forest, Walsh & Lohenry, 2017), as the interdisciplinary student team collaboratively communicated to evaluate, interpret findings, and make discharge recommendations (Solomon & Salfi, 2011). Rubrics have been used by trained faculty raters, to evaluate individual student performance as well as group cohesion (Lie et al., 2017) to improve and develop students' ethical problem solving skills, understanding of professional roles and responsibilities, and efficiency in effective communication and teamwork skills (Gee et al., 2016). Interprofessional experiences have been used variably throughout professional level graduate healthcare education, ranging in complexity from exposure to competency (Solomon & Salfi, 2011). The experiences can be utilized as one out of several activity choices to fulfill a curricular IPE requirement, as a mandatory supplement to current healthcare curriculum (Solomon & Salfi, 2011), or as a single credit course (Gee et al., 2016). Immersion experiences combine didactic course content, which introduce concepts of teamwork used throughout the interdisciplinary process (Gee et al., 2016), while providing opportunity for students to observe, and then practice team clinical skills under the supervision of a faculty facilitator (Solomon & Salfi, 2011). Following the experience, a faculty guided reflective debriefing session (Solomon & Salfi, 2011), allows students the ability to give and receive constructive feedback and

ultimately, to promote preparedness for interdisciplinary team collaboration (Gee et al., 2016). Nationally, institutions have utilized an array of diverse teaching and learning methods including, professional role competency, team based communication and conflict resolution strategies, in order to reinforce the skills required to provide a holistic, team-based approach to client care.

Participation Outcomes: Students, Practitioners, and Clients

As traditional healthcare practice evolves, evidence continues to support and advance collaborative client-centered care. As indicated by Rishel and Hartnett (2017), current and future healthcare practitioners alike are learning about this shift, moving away from fragmented and siloed patient care, and toward an integrated healthcare model. Current literature supports delivery of effective interprofessional programming along the continuum of professional healthcare education, either early on and prior to profession specific knowledge acquisition or following content specific knowledge (O'Neil-Pirozzi et al., 2019), and field experience (MacDonald, Archibald, Puddester & Bajnol, 2011). Despite the timeframe of when interprofessional education (IPE) is introduced, use of diverse teaching styles is necessary (O'Neil-Pirozzi et al., 2019), to allow for individual and cooperative learning opportunities (Rishel & Hartnett, 2017). Assorted learning opportunities can neutralize learner variabilities between cultural, educational, and experiential backgrounds, and assist in facilitating collaborative insight amongst learners (MacDonald et al., 2011). Use of emergent IPE course design, or a quality improvement method based on a collaborative model that allows for curricular

modification in response to learning needs (MacDonald et al., 2011), can facilitate acquisition of contextually specific knowledge, relevant to the adult learner (Rishel & Hartnett, 2017). According to MacDonald et al. (2011), in addition to diversified teaching strategies, interprofessional curriculum must achieve a balance between structure and flexibility, in order to produce positive outcomes associated with self-efficacy, or student confidence in mastery of interprofessional team-based skills (O'Neil-Pirozzi et al., 2019). Furthermore, to effectively address the shift from traditional healthcare service delivery to an integrated healthcare approach, IPE programming should place high emphasis on leadership and advocacy (Rishel & Hartnett, 2017), fostering a social infrastructure where learners are competent and empowered to share their expertise, despite the traditional hierarchy of the medical model (MacDonald et al., 2011). Evidence-based literature continues to support the implementation of interprofessional education, through various teaching modes, prior to, during, and following graduation from a professional healthcare program, promoting robust interprofessional culture and fostering a national shift in healthcare service delivery.

Effective IPE Program Components

Literature indicates exposure of professional healthcare students to interprofessional education (IPE) programming, leads to enhanced student knowledge and skill, as well as improved client outcomes (Stanley & Stanley, 2018). Nationally, a variety of institutions have implemented successful IPE programs. The success of these programs has been attributed to the commitment of administration within higher education, dedication of assigned faculty, and clearly illustrated program objectives,

which align with the institutional mission, vision, and strategic plan (Bridges, Abel, Carlson & Tomkowiak, 2010). As indicated by Stanley and Stanley (2018), supportive administrative leadership, reflective of a collaborative institutional culture has a considerable impact on professionals, encouraging communication and discovery of a common professional value, vision, and purpose. Once professionals share consistent philosophical views, collaboration and expansion of interprofessional relationships can occur through interprofessional co-teaching, workshops, and research opportunities, which provide a realistic example of true collaboration for students (Stanley & Stanley, 2018). Though specific learning components are not standardized across professions (Stanley & Stanley, 2018), institutions utilize a variety of diverse factors, which ultimately contribute to positive student outcomes (Bolesta & Chmil, 2014). Service learning, or a type of synergistic, experiential learning, is an IPE teaching strategy (Bridges et al., 2010), which is commonly embedded into professional healthcare curricula (Bolesta & Chmil, 2014). Service learning promotes uni-professional identity, as well as interprofessional role development (Stanley & Stanley, 2018) through establishment of professionally diverse student relationships, all while providing purposeful community service (Bridges et al., 2010). According to Bridges et al. (2010), reflection following service learning experience is a critical component, correlated with promotion of positive perceptions of other student disciplines, an improved drive to become a better team member and ultimately, comprehensive acknowledgment of their own professional role (Bolesta & Chmil, 2014). Bridges et al. (2010) indicate that scaffolding student learning objectives, during a standardized patient simulation, is

another effective strategy to teach practical team based communication skills (Bolesta & Chmil, 2014). Bridges et al. (2010) described benefits of intentional planning of a standardized patient simulation. In order to assist professional healthcare students in acquisition of knowledge and skill, instructors must use scaffolding (Bridges et al., 2010), or a technique used to create a bridge between profession specific knowledge and information that they may not yet understand about other healthcare professions (Bolesta & Chmil, 2014). Diverse modes of interprofessional teaching and learning strategies are used to promote positive student outcomes in regards to role competency, collaborative communication, and team problem solving. Use of such instructional components will encourage practitioners to represent holistic and collaborative healthcare team members, which will promote higher quality patient outcomes.

Collaborative Programming

Professional healthcare education traditionally has been operated within isolated disciplines (Zahl et al., 2016), inhibiting the degree of interprofessional student collaboration (Lawlis, Wicks, Jamieson & Grealish, 2016). Current literature supports the need for a wide range of healthcare student disciplines to develop the skill set necessary to provide a team based, holistic approach to patient care (O'Hara, Trotter, Olsen, Stinson & McCutcheon, 2018). Intentionally designed interprofessional core competencies, used to guide diverse IPE programming (Zahl et al., 2016), allow for flexibility in planning and implementation of student experiences, which promote high-quality patient health care and strengthened collaborative workplace practices (O'Hara et al., 2018). With this

heightened flexibility, interprofessional learning can transpire in larger student numbers, comprised of diverse healthcare disciplines, through platforms including online learning (O'Hara et al., 2018), clinical workplace supervision (Lawlis et al., 2016), and community based service learning experiences (Zahl et al., 2016). According to O'Hara et al. (2018), use of an online learning platform merges autonomy and self-practice with diverse professional student relationships, to promote uni-professional and interprofessional learning (Lawlis et al., 2016). Though interprofessional online course content and objectives will vary, O'Hara et al. (2018) emphasized careful attention to clearly designed student objectives, use of an interprofessional theoretical framework to guide course development, and post-program evaluation using a standardized measure such as the Readiness for Interprofessional Learning Scale (RIPLS) (Lawlis et al., 2016). Standardized measures such as the RIPLS will ensure effective assessment of student perception toward and insight into interprofessional learning experiences (Lawlis et al., 2016). Through a clinical instructor, exposure of healthcare students to interprofessional team collaboration within the workplace improves student attitudes about other disciplines (Lawlis et al., 2016). Innovative interprofessional experiences begin with collaboration between clinic sites, clinical instructors (Zahl et al., 2016), and diverse healthcare education program facilitators, in order to promote realistic and exceptional learning opportunities (Lawlis et al., 2016). Lawlis et al. (2016) described an IPE program in which master of occupational therapy, bachelor level nursing, and advanced diploma aged care professional students engaged in a 3-week interprofessional experience, with a collaborative focus on nutrition for aging clients. Interprofessional

programs created through institutional collaboration with community members in need can range from short term weekly experiences (Lawlis et al., 2016), to year round pro-bono clinics run by students from diverse healthcare professions (Zahl et al., 2016). Zahl et al. (2016) explained an innovative community partnership, which provided opportunity for therapeutic recreation, social work, nutrition, and nursing students to establish and carry out an interprofessional assessment, collaboratively develop goals, and then implement necessary services for low-income community dwelling adults. Despite the endless combinations or variability in interprofessional programming, consistency should remain in student timetables (Lawlis et al. 2016), and structure of interprofessional objectives (Zahl et al., 2016). Educational objectives, guided by competencies such as those developed by the Interprofessional Education Collaborative (IPEC) (Zahl et al., 2016), will promote consistency and effectiveness of broad spectrum programming.

Programming to Support Interprofessional Core Competencies

Within the United States, modern day healthcare providers lack the appropriate training required to serve as an effective team member (James, Chappell, Mercante & Gunaldo, 2017). Coordination for standards surrounding collaboration are necessary in order to support the aging process, in a population where many are striving to remain healthy at home for as long as possible (James et al., 2017). In order to effectively guide programming for professional healthcare students, institutions nationwide are utilizing interprofessional core competencies (James et al., 2017), published by the Interprofessional Education Collaborative (IPEC), to facilitate a collaborative and interactive learning process, while interprofessionally engaging students (Jones &

Phillips, 2016). IPEC competencies in domains including values and ethics, roles and responsibilities, interprofessional communication and teams, and teamwork, are used nationally as a guide to build measurable IPE objectives, which can be associated with observable behaviors in professional healthcare students (Jones & Phillips, 2016). James et al. (2017) described use of the Kirkpatrick Model as a guide to development and measurement of a productive IPE experience, associated with the domains of competency listed above (Jones & Phillips, 2016), which addressed interprofessional student reaction, learning, behavior, and ultimately results. Literature suggests that the primary step in interprofessional program development is a design which allows students to gain competency in explaining the scope of their own professional role (Lape, Lukose, Ritter & Scaife, 2018), while working to increase clarity into the roles of other healthcare students in which they will be working with (Jones & Phillips, 2016). Jones and Phillips (2016) explained that by doing so, students will build diverse interprofessional relationships, based on improved awareness of both professional expertise and limitations, and ultimately generate a sense of collective respect and shared value (James et al., 2017). Interprofessional programming, developed and implemented at the University of Texas at Austin, uses real world, staged and case-based learning strategies to facilitate collaborative learning through various field and shadow experiences (Jones & Phillips, 2016), where students discover the diverse scope and responsibilities of various health professionals and the skills required for effective team communication (Jones & Phillips, 2016). Another aspect of effective interprofessional program design is allowance of time to share professional conceptualizations and theoretical backgrounds, and

promoting student learning of professional principles, ethics, and values (Jones & Phillips, 2016). As indicated by Lape et al. (2018), according to the Continuum of Interprofessional Collaborative Practice in Health and Social Care, as the complexity of the client escalates, the necessity of holistic team collaboration increases, requiring member contribution and expertise (Jones & Phillips, 2016). Student awareness of their professional team scope and background will promote effective team communication (Jones & Phillips, 2016), promote client-centered collaboration, and abate counterproductive behavior within the healthcare workplace (Lape et al., 2018). Lape et al. (2018) described use of a theoretical framework, such as the KAWA model, to promote diverse healthcare practitioner communication and collaboration based on components that may hinder or facilitate overall client health and wellbeing. Use of theoretical frameworks, models, and established interprofessional core competencies to guide design, development, and implementation of effective and efficient IPE exercises is critical. Literature suggests design and measurement of student reaction, learning, behavior, and application (James et al., 2017) within domains associated with values and ethics, roles and responsibilities, interprofessional communication, and teams and teamwork (Jones & Phillips, 2016), will ultimately prepare professional healthcare students to serve as members of a collaborative team, leading to an efficient and comprehensive approach to quality of patient care (Lape et al., 2018).

Conclusion

Nationally, institutions are lacking in consistent use of evidence-based teaching and learning styles, negatively affecting interprofessional programming in healthcare education (Moyers & Finch-Guthrie, 2016). Effective and efficient interprofessional education (IPE) programming will promote diverse healthcare practitioner communication and collaboration, which will facilitate overall client health and well-being (Zahl et al., 2016). High quality programming and follow through of interprofessional education opportunities is critical to facilitate student learning and promote outcomes which will prepare professional level healthcare students to be effective interdisciplinary team members. Intentional design of student learning outcomes, relevant to domains including values and ethics, roles and responsibilities and interprofessional communication, will cultivate a learning experience which is diverse and comprehensive (Jones & Phillips, 2016). Using diverse modes of interprofessional teaching and learning strategies will facilitate improved student outcomes and lead to improved role competency, collaborative communication, and team problem solving (MacDonald et al., 2011). Ultimately, collaborative strategy and synergistic learning between professional level healthcare students will enrich patient care (Darlow et al., 2016).

CHAPTER THREE:

Description of Proposed Program

Introduction

Present day challenges within healthcare are demanding a shift from attention on disciplinary-focused practice to confronting client problems with a holistic team approach to care (Moyers, Guthrie, Swan, & Sathe, 2014). The problem; however, is that despite criticality, requirements for competence within interprofessional collaborative practice are lacking across the healthcare professions and universities nationally (Moyers, Guthrie, Swan, & Sathe, 2014). Though interprofessional education (IPE) programming exists across many higher education institutions nationally, limited evidence exists to indicate a true *best practice* (Bridges, Davidson, Odegard, Maki & Tomkowiak, 2011). Lacking standardization, IPE programs are being designed, developed and implemented through various modes, leaving institutions to continuously evaluate and restructure, in order to promote effectiveness. Despite availability of validated measures to assess outcomes, lack of applicability across the spectrum of healthcare disciplines leads to reduced national acceptance across institutions (West et al., 2016). In addition to lack of standardization in program structure and evaluative measures, administrative support and acceptance, often uncertain (West et al., 2016), has a direct impact on program funding and institutional acceptance (Hughes et al. 2019), therefore affecting long-term interprofessional program sustainability.

Interprofessional Education Process

The nature of this author's program evaluation research is to design, develop, and implement a campus wide interprofessional education (IPE) intervention to prepare graduate health profession students for working as interdisciplinary team members. *Be Prepared to Sit at the Table*, a campus wide interprofessional program, will include a three-phase IPE program, delivered through various evidence-based teaching models, which are described in more detail below.

Program Activities

Phase One

Phase one will consist of in-person roundtable interprofessional case-based learning and discussion. Large-scale interprofessional programming designed to include interactive student break out groups and discussion of various patient discharge cases, has yielded positive outcomes in regards to student perception of the value, benefit, and importance of an interprofessional collaborative approach when implemented early enough within their curriculum (Gee et al., 2016). Within assigned interdisciplinary round tables, students will begin by sharing their professional elevator speech, expanding on the scope of their professional role. Next, students will be assigned a written client case scenario in which they will have to read and then verbalize where and how their profession might assist the team in facilitation of positive patient outcomes.

Phase Two

Phase two will be delivered through a virtual platform, wherein participants are educated by means of a 1-credit introduction to interprofessional education and development course. According to O'Hara et al. (2018), use of an online learning platform merges autonomy and self-practice with diverse professional student relationships, to promote uni-professional and interprofessional learning (Lawlis et al., 2016). Within assigned interdisciplinary small groups, students will work through a client case, increasing in complexity each week. The interdisciplinary student healthcare team will work to develop the communication skills necessary to provide a holistic, team-based approach to evaluation, with the intention of positive client outcomes.

Phase Three

Phase three addresses hands-on practical skill training and measurement of competency will occur using the Team Objective Structured Clinical Examination (TOSCE). Hands-on practical skill training and measurement of competency occurring through use of a TOSCE (Lie, Richter-Lagha, Forest, Walsh & Lohenry, 2017), has been used to employ problem based and cooperative learning approaches during standardized patient simulations and to provide an authentic and practical experience for professional healthcare students (Solomon & Salfi, 2011). Within assigned interdisciplinary healthcare teams, students will be provided a completed evaluation for a standardized client. The student healthcare team will then respectfully communicate to determine how to intervene appropriately, in order to promote health and prevent further disability or

disease.

Key Stakeholders

In order to guide revision of, or establishment of institutional guidelines, at the local level, and to facilitate improved participation in interprofessional education, engagement of key stakeholders including the Dean of the professional school, the Provost and Vice President of Academic Affairs, as well as faculty, chairs and directors at Le Moyne College is critical. An IPE program presentation to the above mentioned stakeholders will be designed to achieve buy-in, will provide a robust explanation and illustration of how the Jesuit mission and core tenets align with interprofessional programming, drawing particular attention to the institutional mission which places high emphasis on commitment to provision of innovative environments, while providing wide opportunities for learning. Social justice and core Jesuit tenets such as *cura personalis*, or care and development of the whole person, mind, body and soul, directly align with interprofessional education initiatives, striving for improvement in quality client care, safety and satisfaction.

Additional illustration of the alignment between IPE program objectives and evolving academic accreditation standards for professional healthcare programs will be included. Faculty and staff within the institution, equally represented from each professional health care program including physician assistant, family nurse practitioner, and occupational therapy, will be invited to participate along with the author to deliver the IPE program.

Intended Recipients

Occupational therapy (OT) graduate students will directly benefit from this educational program, which will prepare them for working as an interdisciplinary team member during clinical fieldwork placements. Additionally, professional healthcare students including those enrolled in the physician assistant (PA) and graduate nursing programs, including family nurse practitioner (FNP) will benefit. As secondary recipients, future clients who receive health care services from graduates of Le Moyne College, Purcell School of Professional Studies, will also benefit from this interprofessional program.

Recruitment Methods

For the design, development, implementation, and evaluation of this program, the author will aim to recruit an entire cohort of master occupational therapy students. Within the Le Moyne Department of Occupational Therapy, cohort size is capped at 45 students; therefore, the number of anticipated participants will range from between 25–45 students. The inclusion criteria for this research is acceptance into the Le Moyne College Occupational Therapy Program. The exclusion criteria will be students who fall out of their curricular sequence secondary to failure to meet benchmark grade of 80, in two required courses. The three-part sequence of the IPE program will be embedded within the graduate healthcare curriculum, campus wide. Participation in the three-part IPE program will be mandatory across all graduate healthcare professions. Following initial implementation of the program, inclusion of students from other healthcare professions

will also be evaluated.

Purpose of Program Design

The author intends the interprofessional education program to improve professional healthcare students' limited knowledge and awareness of other healthcare professionals' roles and their scope of practice. Mu et al. stated, "healthcare professionals often lack adequate training in understanding the complexities and contributions of varied healthcare providers, lack adequate training in interprofessional skill, and tend to preserve traditional role concepts and territoriality concerns" (Mu, Chao, Jensen, & Royeen, 2004, p. 125). Institutionally, if professional students at Le Moyne College continue to experience limited interaction between healthcare disciplines other than their own, they will enter the healthcare field remaining siloed within their profession, and lacking the respect necessary for collaborative teamwork in healthcare. As students begin their modern day healthcare careers and sit on interprofessional teams, they will lack the critical skill set necessary to effectively collaborate, leaving patient safety at risk. Consistently, novice healthcare providers are entering into professions, recognizing interdisciplinary teamwork and communication is necessary; however, are oblivious to the process, never mind how difficult it is (Dosser et al., 2001). In addition, traditionally disjointed healthcare, administered utilizing individual and categorical services, rendered through multiple providers with inadequate communication, leads to a lack of timely and appropriate service (Dosser et al., 2001). Across the healthcare continuum, breakdown in communication can occur at any time, leading to a lapse in medical care and negative

patient outcomes. As age increases, patient health declines, comorbidities and complexity of diagnosis increases, and the dynamic needs of the patient change (Polti et al., 2011). Ultimately, less preparation at the institutional level will lead to lack of proficiency within the students practice setting, leading to disjointed communication efforts and therefore an ultimate increase in healthcare costs.

Desired Outcomes

The proposed study will seek to produce evidence to support use of effective interprofessional education activities as a method to prepare occupational therapy students for a team based approach to interdisciplinary clinical practice. Large-scale interprofessional programming, intentionally designed to include diverse, interactive student groups and discussion of various case-based scenarios, has yielded positive outcomes in regards to student perception of the value, benefit, and importance of an interprofessional collaborative approach (Gee et al., 2016). Additionally, this study will provide master OT students with knowledge that can enhance their role performance, working as a future member of an interdisciplinary team. According to Lie et al. (2017), interdisciplinary practical skill training, followed by measurement of student competency, has been utilized to effectively employ problem-based and cooperative learning approaches during standardized simulations, providing an authentic and practical experience for professional healthcare students (Solomon & Salfi, 2011). Implementation of assorted opportunities for learning is useful in neutralizing learner variabilities between cultural, educational and experiential backgrounds, assists in facilitation of

collaborative insight amongst learners (MacDonald et al., 2011), and promotes acquisition of contextually specific knowledge which is relevant to the adult learner (Rishel & Hartnett, 2017). Finally, the intended program is designed to effectively address the shift from traditional healthcare service delivery to an integrated healthcare approach (Rishel & Hartnett, 2017). Programming intends to place high emphasis on leadership and advocacy (Rishel & Hartnett, 2017), fostering a social infrastructure where learners are competent and empowered to share their expertise, despite the traditional hierarchy of the medical model (MacDonald et al., 2011).

Barriers and Challenges

Substantial literature correlates a holistic, collaborative interdisciplinary approach to healthcare and improved patient outcomes (Michalec et al., 2017), however institutions nationally continue to deliver a traditional didactic foundation in healthcare, educating students within professional silos and lacking interactive interprofessional learning opportunities (West et al., 2016). Graduate healthcare programs at Le Moyne College are a relatively new concept, as the institution began as a liberal arts college, with deep roots in arts and sciences. More recently, Le Moyne has begun to offer graduate programs in business, healthcare and education, necessitating a collaborative approach to program policy development, as well as purposeful initiatives for interprofessional learning opportunities. The challenge however, lies within the attitudes, beliefs, and values of administrators, faculty and staff, who are deeply rooted in tradition and have limited interest in embracing modernized collaborative curriculum (West et al., 2016). According

to West et al. (2016), administrative support and acceptance of an integrated interprofessional curriculum has a direct impact on institutional acceptance and sustainability funding (Hughes et al. 2019). Administrative support begins primarily within the inclusion of interprofessional and collaborative education, within the institutional mission, vision, and strategic plan. If IPE is not infused into foundations such as those mentioned above, challenges will present, including decrease in priority and endorsement by higher administration.

Hughes et al. (2019) indicated, that although most faculty can identify with the criticality of and have support for interprofessional programming, barriers represented by the limited knowledge outside of their own discipline and awareness of required time commitment hinders the cultural adoption of teamwork and collaborative practice (Michalec et al., 2017). Phenomenologically, research on student perception of IPE reveals trends, which indicate an increase in student concern with workload, associated with interprofessional programming (West et al., 2016). Diminished facilitator follow through and lack accountability for their work, negatively affects student perception of IPE programming, and suggests the likelihood of limited faculty knowledge and experience with instructional IPE methods (Hughes et al., 2019). Smaller institutions such as Le Moyne College, which lack adequate support staff to design, develop, and implement interprofessional programming, leave initiatives to be completed by current staff and faculty, already responsible for a full workload. Interprofessional facilitators are expected to volunteer their service, educate themselves on modern IPE practice, and collaborate with other interprofessional champions in order to implement IPE initiatives,

leaving room for diminished follow through and lack of ability to hold students accountable for participation.

Examples of Course Materials

Throughout the three-phase program, teaching modes and strategies will include didactic presentation through a virtual context, role-play, small group discussion, media, review of assigned case studies, and debriefing to extract core concepts. Assorted learning opportunities such as those mentioned will be beneficial in order to adequately address learner variabilities between cultural, educational, and experiential backgrounds, and assist in facilitating collaborative insight amongst learners (MacDonald et al., 2011).

During phase one, students in interdisciplinary teams will be assigned a written case scenario. A sample case scenario, intended to facilitate conversation on professional scope and teamwork is provided in Appendix B. Within phase two, a virtual course will afford interdisciplinary groups, the opportunity to work through a scaffolded client case, to develop communication skills necessary to provide a team-based approach to care. A sample course syllabus is provided in Appendix C. During phase three, students will engage in hands-on practical skill training, and measurement of competency using a Team Objective Structured Clinical Examination (TOSCE). Through use of a standardized client, the student healthcare team will collaboratively communicate to determine how to appropriately intervene. A sample TOSCE scoring rubric is provided in Appendix D.

Conclusion

Modern healthcare landscape presents challenges which require deviation from traditional disciplinary-focused practice, to collaborative and client-centered approach to care. Despite high priority for interprofessional education (IPE) across universities nationally, current student competency requirements are lacking, with limited evidence to support *best practice* in programming. This doctoral project aims to fill this gap by developing a comprehensive, three-part campus wide IPE program. The development and design of this program is grounded in theory and substantiated by evidence-based literature.

CHAPTER FOUR:

Evaluation Plan

Engagement of Stakeholders

Engagement of key stakeholders is critical in order to use program evaluation research to guide revision of or establishment of new institution-wide guidelines, at the local level, for participation in interprofessional programming. Meetings with administrators, including the Dean of the professional school, the Provost and Vice President of Academic Affairs will take place in person, however in order to reach faculty, chairs, and directors, scheduled Zoom meetings will be offered, in order to optimize scheduling. The presentation will be designed in an effort to achieve buy-in among stakeholders and will primarily include the aspects of the interprofessional programming deemed important. The presentation will begin with a robust explanation and illustration of the alignment of IPE with the Jesuit mission. Next, it will promote stakeholder awareness and correlate program goals, with the IPE program evaluation research, by listing and describing how current IPE program objectives align with evolving healthcare program accreditation standards. Finally, in order to indicate program accomplishments, current data will be presented to show the student benefits of engagement in IPE.

Purpose of the Evaluation

The purpose of this confirmatory process is to establish institutional wide guidelines, at the local level, for participation in interprofessional programming. According to Riskiyana et al. (2018), objective measurements have indicated that IPE

efforts have been shown to improve student academic outcomes in areas including professionalism, ethical decision making, role competency, ability to delegate a task, awareness toward team dynamics, and an overall patient oriented approach to healthcare. The problem; however, is despite emerging evidence, standards of competence for interprofessional collaborative practice are underutilized across the healthcare professions and institutions nationally. Though interprofessional education (IPE) programming exists across most higher education institutions nationally, limited evidence exists to indicate a true *best practice*. This means that each institution is carrying interprofessional programming in a different way, while trying to reinvent the wheel. Logically, this is not an effective or efficient strategy. At the local and state levels, smaller Jesuit institutions, such as Le Moyne College, struggle to develop and plan interprofessional opportunities, due to limited faculty and administrative support, time constraints, and lack of funding for sustainability.

Scope of the Evaluation

This doctoral project encompasses three phases: 1) in-person round table interprofessional case-based learning and discussion, 2) a 1-credit introduction to interprofessional education and development course, and 3) a hands-on practical skill training and measurement of competency, occurring through a team objective structured clinical examination (TOSCE).

Recruitment is aimed at an entire cohort of master occupational therapy students, within the Le Moyne Department of Occupational Therapy. Current cohort size is capped

at 45 students; therefore, the number of anticipated participants is a range from between 25–45 students. The inclusionary criterion for this research is acceptance into the Le Moyne College occupational therapy program. The exclusionary criteria will include students who fall out of curricular sequence secondary to failure to meet benchmark grade of 80, in two required courses. Student participants will be recruited through registration processes for the 1-credit interdisciplinary course, required for all OT students.

Evaluation Questions

Table 3.1 provides applicable qualitative and quantitative research questions, for key stakeholder groups affiliated with the interprofessional programming, including persons who are actively involved in program delivery, such as trained faculty facilitators and reviewers, administrators and funding organizations who may be affiliated with the educational institution.

Table 3.1
Evaluation questions relevant to stakeholders

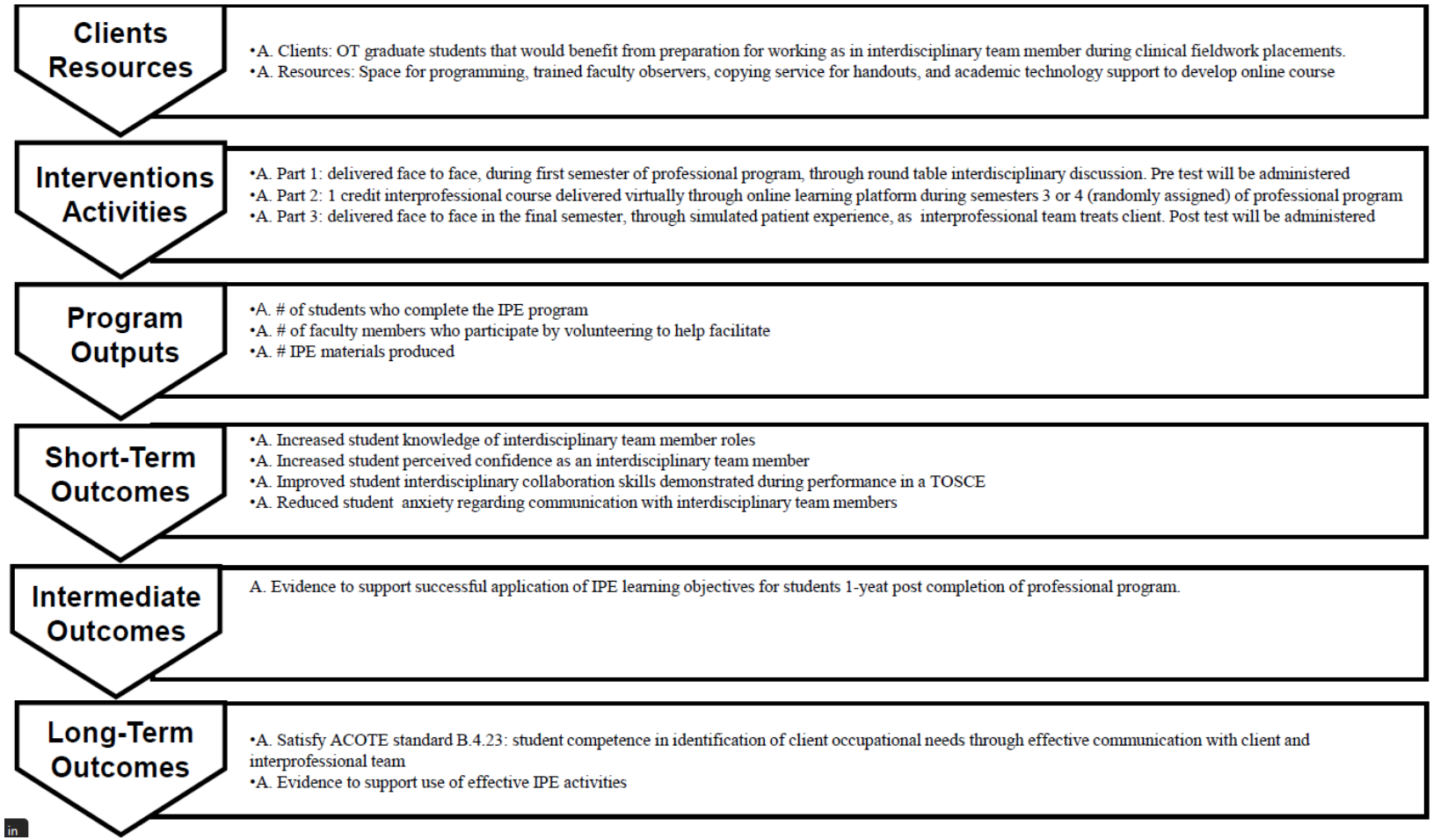
Stakeholder	Question Type	Proposed Question
Persons actively involved in program delivery	*Qualitative*	Describe how the information presented was considered relevant?
		In what ways was the information presented too easy or too complicated?
		In what ways were certain aspects of the program more or less effective?
		Is there anything that should be changed to improve the program delivery?
		Which learning tools or activities do OT students perceive to have been the most effective in

		preparing them for participation as an interdisciplinary team member?
		Will participants be prepared for participation as an interdisciplinary team member following the three-phase IPE experience?
	Quantitative	Did participants gain knowledge of interdisciplinary team member roles?
		Did participants gain interdisciplinary collaboration skills?
		Did participants gain perceived confidence in their ability to be an interdisciplinary team member?
Educational institution administration	*Qualitative*	Does the content of program match the institution's goals?
		Were program participants educated in a holistic manner, with emphasis on education of the whole person?
		Were program participants sufficiently prepared to collaborate as an interdisciplinary team member in their clinical practice?
		Does the program content align with faculty needs and the existing curriculum?
	Quantitative	Are the outcomes consistent with the proposed theoretical justification?
		Do the benefits of the program justify the costs to sustain campus wide IPE program?
		Is the program more costly than other means of delivery?
Funding Organizations	*Qualitative*	Are the long-term organizations goals of the program realistic and achievable?
		Will the program increase evidence to support successful IPE activities?
	Quantitative	Will the research data demonstrate the importance of the role of the OT as an interdisciplinary team member?
		In light of the current healthcare landscape, is the program justified based on study findings?

Logic Model

Figure 3.1 represents a simplified program logic model, indicating predicted program inputs and outputs, as well as projected outcomes in a logical format. Simply put, inputs including occupational therapy graduate students who will directly benefit and resources such as space, faculty, and technology will lead to outputs which include a 3-part intervention, outlined within the logic model. Short-term outcomes, measured within the program launch will include increased student knowledge, perceived confidence, and interdisciplinary collaboration skills when working on an interdisciplinary team. Intermediate and long-term outcomes are also indicated in the model. A full representation of this program's logic model is provided in Appendix E.

Figure 3.1
Simplified Logic Model



Type of Research Design

Being that this campus wide interprofessional education program is in its first launch phase, the research will utilize a quasi-experimental design, using pre and post survey testing to measure the dependent variables of interest. The IPE program itself will serve as the independent variable.

Approach to Data Collection

Formative or process research data gathering. Methodology to collect qualitative information will include administration of pre and post testing, in order to explore changes in student perceptions of preparedness. Prior to part 1 of the interprofessional program, OT students will complete online surveys. They will be asked to rate their current level of confidence using a 1 to 10 scale in areas described in the AOTA fieldwork performance evaluation. Examples are included below:

1) To what extent do you feel confident to clearly articulate the values and beliefs of the OT profession to colleagues, health care service providers and the public (AOTA, 2002)?

2) To what extent do you feel confident to clearly articulate the value of occupation as a method and desired outcome of OT to colleagues, healthcare service providers and the public (AOTA, 2002)?

3)To what extent do you feel confident to clearly communicate the role of the OT to colleagues, healthcare service providers and the public (AOTA, 2002)?

4) To what extent are you able to confidently demonstrate through practice or discussion, the ability to actively collaborate with colleagues and other healthcare service providers (AOTA, 2002)?

Following part 3, the survey will include open-ended questions designed to gather a comprehensive, holistic, and contextual understanding of student experiences with the program, and particularly the learning tools or activities they perceive to have been most effective in preparing them for participation as an interdisciplinary team member. The surveys will be completed immediately following the TOSCE, in person using paper and pencil. This will constitute the formative and qualitative aspect of the program evaluation research.

Summative or Outcome Research Variables and Measurement. Dependent variables within this program evaluation will include the following measurements of change:

- Changes in student knowledge of their interdisciplinary team member roles will be measured through assessments such as quizzes or exams within their virtual didactic course.
- Changes in student perception of confidence as an interdisciplinary team member will be measured through survey questions, using a 1-10 rating scale.
- Changes in student anxiety surrounding communication with interdisciplinary team members will also be measured through survey questions, using a 1-10 rating scale.

- Changes in the proficiency of students' interdisciplinary collaboration skills will be rated by trained observers during the TOSCE. TOSCE will be used as a competency examination to collect summative and quantitative information in part 3 of the proposed IPE program. During the TOSCE teamwork evaluation, a standardized patient will be utilized to role-play a common health care scenario, which requires a comprehensive and holistic interdisciplinary team approach for evaluation, intervention, and discharge.

Data Management Plan

To maintain participant anonymity and confidentiality throughout the program evaluation process, this researcher will utilize a personal laptop to create surveys that can be distributed via the Qualtrics application link. An assigned numerical identification for each participant will be used in order to sustain confidentiality throughout the duration of the research. Codes will be created to label, organize and categorize the findings.

Data Analysis and Reporting

Formative or Process Data Management and Analysis. Pre-surveys will be distributed via an online platform in an effort to maintain credibility. Post-surveys completed by pen on paper, will be distributed immediately following the exercise to maintain transferability. Qualitative information collected within the surveys will be analyzed for consistent words or phrases. Codes will then be created to label, organize, and categorize the findings, maintaining dependability. Finally, an Excel spreadsheet will be used to calculate the frequency of recurring themes for confirmability.

Summative or Outcome Data Management and Analysis. For each of the dependent variables, quantitative data collection will be measured via ordinal numerical sequences, and entered into Excel spreadsheets for data storage. Quizzes utilized during part 2 of the program will establish internal validity, given that students will receive didactic course content, and then be assessed. For data collected during the TOSCE, scores will serve as the means to measure changes, expressed in numerical format via a scoring rubric, completed by trained observers, who will be approved faculty facilitators. The TOSCE will establish external validity, as collaboration skills can be expected to be applied to other real life clinical settings. Observers will complete training prior to engaging in IPE programming, to ensure consistent reliability among those who are scoring.

Conclusion

The approach to program evaluation and data analysis, outlined above will ensure program relevance as well as validity. Questions which formed the evidence-based evaluation of literature, informed the evaluation plan of this doctoral project. Using a mixed method approach, the evaluability assessment outlined above ensures acknowledgement of both qualitative and quantitative factors.

CHAPTER FIVE:

Funding Plan

Project Description

Modern day healthcare landscape requires consistency in effective interdisciplinary team collaboration and client-centered care. Mu et al. (2004) emphasizes that healthcare professionals are not consistently trained to understand the complex contributions of each discipline on a modern collaborative healthcare team, promoting preservation of traditional roles and territoriality concerns. Research indicates that interprofessional education (IPE) initiatives improve students' interprofessional collaborative knowledge, skills, and behavior, leading to an overall increased preparedness as an interdisciplinary team member (Riskiyana et al., 2018). In addition to improvements in student knowledge and skill set, IPE initiatives aim to improve modern day healthcare by promoting regularity in communication and practitioner follow through in order to improve client outcomes (de Vries-Erich et al., 2017). Supportive literature, along with steady follow through of IPE initiatives, are critical in order to teach the skills required to promote collaboration and communication amongst diverse interdisciplinary healthcare teams. However, limited evidence supports *best practice* in IPE program design, development and implementation. This doctoral project: (1) identifies a gap in consistent and effective use of IPE across professional level healthcare education nationally; (2) investigates *best practice* in current IPE exercises and effective adult learning strategies; (3) design a three-phase campus-wide interprofessional education program; (4) integrates evidence-based teaching approaches in order to cater to diverse

learning styles; (5) implements the IPE program; and (6) surveys consenting students to analyze perceived preparedness as interdisciplinary team members. The goals of this doctoral project are to: (1) promote perceived preparedness as interdisciplinary team members in master occupational therapy students; (2) produce evidence to support use of effective IPE activities as a method to adequately prepare occupational therapy (OT) students for an interdisciplinary team-based approach to practice; and (3) understand what learning tools and/or activities OT students perceive to be most effective in preparing them for participating as an interdisciplinary team member.

Funding Plan Introduction

This funding plan addresses two different aspects: (1) implementation of a three-phase campus-wide IPE program; and (2) disseminating program evaluation results. First, the implementation expenses described are for adjunct faculty required to fill in the three credits of workload otherwise fulfilled by IPE faculty, light food and refreshments offered within phase one, and standardized patients used during the team observed structured clinical encounter (TOSCE) in phase three. Second, dissemination expenses are described for presenting the program evaluation results at the annual American Occupational Therapy Association (AOTA) and the Interprofessional Education Collaborative conferences. These conferences were selected because they are the most relevant for occupational therapy and interprofessional education.

Available Local Resources

At the local level, a variety of resources are already either in place or available for use during the design, development and implementation of the three-phase IPE program, described above. Below are available resources provided by the institution.

Table 5.1
Local Resources

Resource	Description
Institutional technology support	Availability of institutional technology support to facilitators and students, used throughout the IPE program. Phase one: Set-up and problem solving speaker system and projector equipment, used during round table discussion and share. Phase two: Problem solving and technical glitches experienced during introductory IPE course. Phase three: Microphone and recording setup of simulated case during TOSCE.
Online course instructional designer	Required resource for virtual course instructors, to promote course design, which emulates Jesuit values, from a learner centered perspective.
Online learning Platform	Availability of Canvas, used to implement phase two, the introductory IPE course.
Synchronous video conferencing	Availability of Zoom, used to implement phase two, the introductory IPE course.
Simulation lab accessibility	Availability of practical lab simulation space, by reservation, used to implement phase three, the TOSCE.
Office space	Availability of required work space to support facilitators and instructors.
Office supplies (i.e. paper, printer access)	Availability of office supplies required to support the IPE program.
Administrative support	Availability of health profession administrative assistants, for reserving space, ordering the necessary office supplies and food for phase one.

Needed Resources: Budget

Two budgets are included in this funding plan (see chart 5.2 for budgets). The first budget is for program implementation. Program implementation costs will be higher during the first year, because of program development, thus the budget for year one is included. The second budget depicts costs to disseminate program evaluation outcomes. Further elaboration of the dissemination plan is included within chapter 6. Outcomes are expected to be disseminated within 12 months following completion of this project, as that is the anticipated time frame it will take to run the three phases described within this program.

Program Implementation Costs

Ongoing program development, implementation and revision will be needed in order to promote quality and b*est practice* in IPE programming. Select members of the interprofessional education committee, namely a faculty or administrator from each healthcare discipline, are committed to assist in program development and implementation, as part of their required service to the college. However, to ensure program sustainability, facilitators will need to rotate and require reimbursement for their work and overload expenditure. Typically, faculty workload, or the amount of time spent on “teaching, research and service” is most often calculated by compiling the number of classes and class sizes taught per semester (Mupinga & Maughan, 2008, p. 17). Mupinga and Maughan (2008) disclose the broad spectrum on which faculty workload is calculated among institutions nationally, especially when considering virtual course instruction.

Workload demands of this three-phase IPE program will fall under a full time faculty member's workload. The institution will hire an adjunct to cover the workload which the full time faculty member can no longer teach as a result of instruction and facilitation of the IPE program. Sample program expenses are included in the year one program implementation budget (see Table 5.2).

Standardized patient (SP) costs are another requirement used within phase three of the program. Annually, two to three SPs will be utilized during the Team Observed Structured Clinical Encounter (TOSCE). According to Gillette, Stanton, Rockich-Winston, Rudolph and Anderson (2017), SPs typically complete one hour of training prior and work an average of approximately 3.75 hours during a practice assessment. According to the New York State Department of Labor (2020), minimum wage is $12.50 per hour. Sample program costs are included in the year one program implementation budget (see Table 5.2).

Dissemination Expenses

In-person dissemination of program evaluation results will occur mainly through professional conferences, in which additional program funding must be considered. For this doctoral project, dissemination will occur through poster presentations at two annual professional conferences (see chapter 6). Specific expenses include conference registration (at presenter’s rate), travel to and accommodations at the conference venue, meals, and printing for posters and handouts. Journal publication will also be utilized for dissemination of program outcomes. Though many opportunities for publication may be

free of cost, occasionally journal publication may have a fee. See Table 5.2 for budget specifics.

Table 5.2
Year 1 Expenses

Category	Expense	Amount	Description
Implementation	Adjunct faculty	3 credits $3,500.00	Department adjunct faculty will be hired to teach the 3 credits, which would have been otherwise taught by the faculty teaching IPE
	Standardized patients	3 standardized patients $12.50 per hour 3.75 hours Total $140.63	Standardized patients will be hired during phase 3 to simulate a realistic client interaction for the interprofessional treatment team
	Food	$500.00	Light food and refreshments will be offered during phase one.
Dissemination	Annual AOTA conference	$2,000.00	Printing costs, airfare, registration, hotel and meals.
	Annual IPEC Conference	$2,000.00	Printing costs, airfare, registration, hotel and meals.
	Written Publications • Journal of Interprofessional Care • Journal of Interprofessional Education and Practice	 $750.00 $750.00	Publication for certain journals requires supplies including a computer, printer and paper, as well as certain price per page.
	Electronic Media • Podcasts	$250.00	Computer and microphone costs
Total		$9,860.63	

Potential Funding Sources

Typically the activities in this funding plan will be covered by the institutional budget line for interprofessional education. Course development and dissemination of research findings at one or two annual conferences will be covered within the budget. On occasion funding may not be available by the institution. For example, a faculty member may be allocated limited funding for dissemination, such as annual or bi-annual publication fee reimbursement (e.g. $500). Below are potential funding opportunities for the two areas of this funding plan: Course implementation and dissemination.

Table 5.3
Potential Funding Opportunities

Funding Type or Source	Description	Criteria	Award
Foundation grant: Robert Wood Johnson Foundation	Support of pressing public health and healthcare issues	Agencies, universities, and public charities	Varies
Federal grant: National Institutes of Health: Department of Health and Human Services	Supports building expertise and coordination among healthcare professions within the U.S.	Higher education institutions, and nonprofits	Max award: $500,000.00
Personal Endowment: Julia and Thomas Lanigan Fund	Supports bridging gap between sciences, medicine, and wide-ranging disciplinary concerns	Funding available to this writer through award and title designation	Flexible expenditure: $10,000.00 per calendar year, for 3-year term
Institutional Funding	Supports faculty to attend academic conferences for continuing education	Interprofessional education faculty members	Varies: As explained within the Le Moyne College faculty handbook (2019), “when a faculty

	member takes an active part in a program, organizing or chairing a session… the college will pay between 50%–100% of expenses" (Le Moyne College, 2019, p. 52).

Conclusion

Effectiveness and consistency of interprofessional education (IPE) programming is critical to ensure a client-centered, team approach to healthcare. Opportunity is necessary for occupational therapy students, along with other professional level healthcare education students to learn the collaborative skill set required to be an effective member of an interdisciplinary team (Darlow et al., 2016). A three-phase IPE program will increase professional students' perceived preparedness to work collaboratively on interdisciplinary teams, while increasing evidence to support *best practice* within IPE program choices. This program addresses a gap in consistent and effective implementation of *best practice* in IPE within professional level healthcare education. The program involves occupational therapy and other professional level healthcare students in the delivery and evaluation of program effectiveness. Costs associated with programming, as outlined above, will ensure professional implementation of an evidence-based model curriculum, while maintaining sustainability.

CHAPTER SIX:

Dissemination Plan

Project Description

Dynamic and complicated components of modern day healthcare practice calls for a collaborative, team approach to holistic and client-centered care. Follow-through and carry-over of medical care is critical in order to facilitate improved client outcomes and safe practice (de Vries-Erich et al., 2017). Interprofessional education (IPE), is a curricular approach which promotes collaborative and interrelated learning for professional healthcare students. IPE is required for comprehensive training of future healthcare providers, in order to promote an effective and efficient approach to client care. Substantial evidence-based literature supports IPE, indicating improved student outcomes in areas including comprehensive acknowledgment of their own professional role, promotion of positive perceptions of other disciplines and motivation to competently fulfill a team member position (Bolesta & Chmil, 2014). Limitations in mandate, absence of evidence to support *best practice,* and lack of clear professional program accreditation specifications (Virant-Young et al., 2014), hinder widespread institutional buy-in, on a national basis (Long et al., 2014). This doctoral project (1) identifies a gap in consistent and effective use of IPE across professional level healthcare education nationally; (2) investigates *best practice* in current IPE exercises and effective adult learning strategies; (3) designs a three-phase campus-wide interprofessional education program; (4) integrates evidence-based teaching approaches in order to cater to diverse learning styles; (5) implements the IPE program; and (6) surveys consenting students to analyze

perceived preparedness as interdisciplinary team members. The goals of this doctoral project are to (1) promote perceived preparedness as interdisciplinary team members in graduate occupational therapy students; (2) produce evidence to support use of effective IPE activities as a method to adequately prepare occupational therapy (OT) students for an interdisciplinary team-based approach to practice; and (3) understand what learning tools and/or activities OT students perceive to be most effective in preparing them for participating as an interdisciplinary team member.

Dissemination Goals

- *Long-term goal:* Program results will contribute to occupational therapy and other healthcare professions to substantiate *best practice* in IPE.
- *Short-term goal:* Program results will inform professional healthcare educators, including occupational therapy instructors, regarding practicality and versatility of a particular IPE activity or tool.
- *Short-term goal:* Program results will advance understanding of student preferences surrounding IPE activity choices, and perceived preparedness as an interdisciplinary team member.

Target Audience

- *Primary audience:* The primary audience for dissemination of this program's evaluation results is professional healthcare educators, including occupational therapy instructors. Educators may appraise evaluation results, and integrate this three-phase program into their institution's interprofessional programming,

prompting dissemination. The goal is to promote professional healthcare students perceived preparedness as interdisciplinary team members.

- *Secondary audiences:* Secondary audiences for dissemination of this program's evaluation results include occupational therapy (OT), physician assistant (PA), and nurse practitioner (NP) students. Additionally, results are intended for key stakeholders in institutional administration, in order to promote continued sustainability and program buy-in.
    - OT, PA, and NP students may benefit from participation in this three-phase IPE program, both academically within their coursework and in their future work as healthcare practitioners. The goal is to promote perceived competency and preparedness as interdisciplinary team members.
    - Institutional administration may appraise program results, using evidence to facilitate future IPE program development, and to provide evidence to support specific healthcare program engagements in order to meet any discipline specific accreditation standards. The goal is to promote evidence-based practice in IPE.

Key Messages

For Professional Healthcare Educators, including Occupational Therapy Instructors:

1. Encouraging your students to engage and participate in IPE may (1) establish their awareness and knowledge of healthcare disciplines other than their own; (2)

promote the collaborative skill set necessary for a holistic, team approach to client care; and (3) strengthen the comprehensivity and quality of their education. Evidence supports the use of IPE to enhance comprehensive acknowledgment of the students' own professional role, as well as promotion of respect and understanding of professional roles other than their own. Appraisal of results from this three-phase IPE program may improve professional healthcare student motivation to engage in IPE, in order to competently fulfill a collaborative team member position. Engagement in IPE activities may ultimately improve client safety, quality of care, and outcomes. In summary, advocating for professional healthcare student participation in IPE may be effective in promotion of a robustly comprehensive learning experience, while boost their confidence to serve as interdisciplinary team members to ultimately improve client outcomes.

2. Current research recommends use of Knowles Adult Learning Theory to guide planning, development, and implementation of adult learning courses. Instructional techniques focus on incorporation of the adult learners self-concept and role competency (Aldrich & Peters, 2019), and promotes instructor acknowledgement of the student's life experience (Halpern & Tucker, 2014). An interdisciplinary team-taught approach using role modeling is one effective strategy, used within IPE program design (Dosser et al., 2001). This strategy affords students the opportunity to observe instructors modeling collaborative communication and interaction (Dosser et al., 2001), while illuminating practice

philosophy, which may differ substantially among the various healthcare professions (Shoemaker et al., 2011).

For OT, PA, and NP Students:

- Participating in IPE programming may (1) establish awareness and knowledge of healthcare disciplines other than your own; (2) promote the collaborative skill set necessary for a holistic, team approach to client care; and (3) strengthen the comprehensivity and quality of your education. Nationally, evidence literature supports the use of IPE to enhance comprehensive understanding of your own professional role, as well as promotion of respect and understanding of professional roles other than your own. Participation in this three-phase IPE program may enhance your motivation to engage in the experiences, ultimately contributing to your overall preparedness as an interdisciplinary team member and thereby contributing to improved client outcomes.

For Institutional Administrators:

1. Interprofessional program development and revision to support provision of interprofessional student learning may (1) establish their awareness and knowledge of healthcare disciplines other than their own; (2) promote the collaborative skill set necessary for a holistic, team approach to client care; and (3) strengthen the comprehensivity and quality of their education. Evidence supports the use of IPE to enhance comprehensive acknowledgment of the

students' own professional role, as well as promotion of respect and understanding of professional roles other than their own. Appraisal of results from this three-phase IPE program may improve professional healthcare student motivation to engage in IPE, in order to competently fulfill a collaborative team member position. Engagement in IPE activities may ultimately improve client safety, quality of care and outcomes. In summary, administrative support for professional healthcare student participation in IPE may be effective in promotion of a robustly comprehensive learning experience, while boosting their confidence to serve as interdisciplinary team members to ultimately improve client outcomes.

2. Current research recommends use of Knowles Adult Learning Theory to guide planning, development and implementation of adult learning courses, facilitates incorporation of learner self-concept and role competency, through synchronous interaction (Aldrich & Peters, 2019), promoting instructor acknowledgement of the students' life experience (Halpern & Tucker, 2014). An interdisciplinary team-taught approach using role modeling is one effective strategy (Dosser et al., 2001), used to afford students the opportunity to observe instructors modeling collaborative communication and interaction (Dosser et al., 2001), while illuminating practice philosophy, which may differ substantially among the various healthcare professions (Shoemaker et al., 2011).

Sources/ Messengers

- **For Professional Healthcare Educators, including Occupational Therapy Instructors:** Professional healthcare educators, including occupational therapy

instructors, utilize the American Interprofessional Health Collaborative, as a valued source whose focus is on transforming learning through change in policy, practice and scholarship, driving collaborate healthcare to promote quality, effective and safe client care (American Interprofessional Health Collaborative, 2020). The National Center for Interprofessional Practice and Education is a credible source for evidence-based practice in higher education. Both sources will be ideal for dissemination of this IPE program's evaluation results, to professional healthcare educators, including occupational therapy instructors. Information may be disseminated through organizations' publications, conferences, webinars, and poster sessions, as described next.

- **For OT, PA, and NP Students:** Professional healthcare students look to their respective national associations including the American Occupational Therapy Association, the National Association of Physician Assistant, and the American Association of Nurse Practitioners as dependable sources, for evidence-based information. Information may be disseminated through these associations' publications, conferences, webinars, and poster sessions, as described next.
- **For Institutional Administrators:** The National Center for Interprofessional Practice and Education is a credible source for evidence-based practice in higher education. This would be an ideal organization for dissemination of this program's evaluation results to institutional administrators interested in IPE. Information may be disseminated through organizations' publications, conferences, webinars, and poster sessions, as described below.

Dissemination Activities

- **Written Publication:**
    - A journal article compiling this program's evaluation results will be written and submitted to a peer-reviewed journal, The Journal of Interprofessional Care within 12-months of the completion of this three-phase program. This dissemination activity will outline the results and implications for IPE associated with professional level healthcare students.
    - In collaboration with fellow members of the Le Moyne College interprofessional education committee, an article describing student learning preferences, as associated with effectiveness in choice of IPE activities/tools, will be completed within 12-months of the completion of this three-phase program. The article will be submitted to a peer-reviewed journal, The Journal of Interprofessional Education and Practice. This dissemination activity will share evidence to inform *best practice* in interprofessional clinical education, with professional healthcare educators, including occupational therapy instructors.
- **Electronic Media:**
    - A podcast integrating strategies to develop IPE programming with evidence-based information will be proposed to the Center for Interprofessional Practice, Education and Research, within 12-months of completion of this doctoral project. The intent of this podcast is to inform professional healthcare educators, including occupational therapy

instructors, by illuminating the broad potential for IPE in professional level healthcare education, while touching on common inconsistencies which may lead to decreased program effectiveness.

- **Person-Person Contact:**
    - A poster presentation proposal will be submitted to the 2021 American Occupational Therapy Association conference. The poster investigates professional healthcare students' perceived preparedness as an interdisciplinary team member following a campus-wide three-phase IPE program.
    - A poster presentation proposal will be submitted to the 2021 Interprofessional Education Collaborative fall conference in June of 2021. The poster will examine best practice in choice of IPE activities/tools, for the design of campus-wide interprofessional programming.

Budget

In person dissemination of program evaluation results will occur mainly through journal publication, electronic media and person-person contact at professional conferences, all three in which additional program funding must be considered. For this doctoral project, journal publication will be utilized for dissemination of program outcomes. Though many opportunities for publication may be free of cost, occasionally journal publication may have a fee. Dissemination will also occur through means of electronic media. The majority of electronic dissemination activities require additional time commitment, with less of a focus on financial resources. Finally dissemination will

occur through poster presentations at two annual professional conferences including the American Occupational Therapy Association and the Interprofessional Education Collaborative. Specific costs include conference registration (at presenter's rate), travel to and accommodations at the conference venue, meals, and printing for posters and handouts. See Table 6.1 for budget specifics.

Table 6.1
Dissemination Budget 2020–2022

Dissemination Activity	Item	Cost	Description
Written Publications	Equipment	$500.00	Computer, printer, paper
• The Journal of Interprofessional Care	Supplies	$500.00	Cost per page
• The Journal of Interprofessional Education and Practice		$500.00	Cost per page
Electronic Media • Podcast	Preparation and Recording Time	$250.00	Computer, microphone
Person-to-Person Contact	Supplies	$1000.00	Paper materials, printing and copying costs
The American Occupational Therapy Association public poster presentation	Travel	$1,500.00	Airfare, conference registration, hotel accommodations and meals
The Interprofessional Education Collaborative public poster presentation		$1,500.00	Airfare, conference registration, hotel accommodations and meals
Total cost		$5,750.00	

Evaluation

- **Written Publications:** Dissemination of information through journal publication will be considered successful if it is accepted to a peer-reviewed journal.

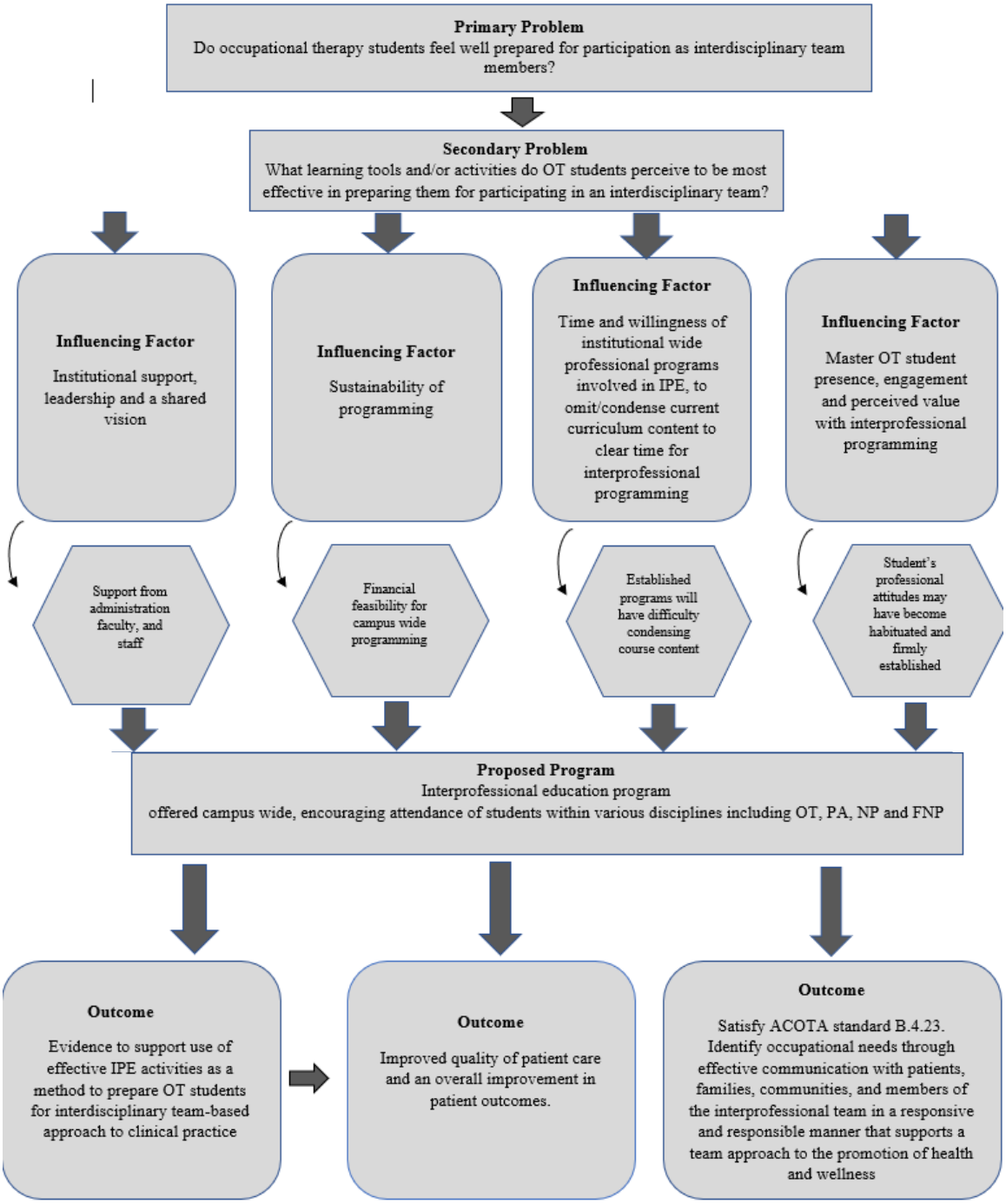
Constructive and critical feedback from journal reviewers, will also be used to determine success.

- **Electronic Media:** Dissemination of information through podcasts will be tracked through number of downloads and listeners. Volume will correlate with success rate. Rankings and reviews will also be used to track success of dissemination.
- **Person-Person Contact:** Number of attendees at each poster presentation will be tracked by the presenter. Exchange of professional contact information and call to action will also be followed to determine progress.

Conclusion

Interprofessional education occurs when professional level healthcare students', learn from, with and about each other (Dosser et al., 2001). Literature supports use of IPE to improve student role competency and to build the collaborative skill set necessary for a team-based approach to modern day healthcare. However, variabilities in program design, lack of consistency in healthcare accreditation standards, and limited evidence to support *best practice* in IPE, impact institutional participation on a national level (Hughes et al. 2019). Dissemination activities listed above address both of the long-term and short-term objectives outlined. Ultimately, dissemination outcomes aim to share evidence-based outcomes associated with students' perceived preparedness as interdisciplinary team members, following a three-phase IPE program, in order to promote *best practice* in program choice.

APPENDIX A: Explanatory Model



APPENDIX B: Case Vignette

Bryce Harris is a 23-year-old male, who grew up in a middle-class neighborhood. His parents have been married for 26 years. His mother is a 3rd grade teacher, and his father an investment banker. Both parents supported and encouraged their children to learn, grow and follow their dreams.

Bryce has always been a fun-loving, energetic, and intellectual young man. Part of the popular crowd throughout adolescence and early adulthood, Bryce is known to be empathetic and kind. As a teenager attending McKinley High School, Bryce excelled. A National Honor Society student, he showed high potential for academic excellence. Along with his academic competence, Bryce was a three-sport high school athlete. He loved to run and was a four-year athlete, serving one year on the Junior Varsity soccer team, and the remainder of his three years as a Varsity soccer player. During the summer months, Bryce worked as counselor at a local summer camp, where he led sports and recreation activities, and volunteered time as a lifeguard. Nevertheless, Bryce's true passion was gymnastics. Starting his gymnastics journey at a young age (5 years old), Bryce moved quickly into the local and regional competition circuit. With exceptional grades and SAT scores, Bryce was granted acceptance into Pennsylvania State University as an Engineering major and made the Dean's list for the four semesters that he was there. Additionally, Penn State has a competitive gymnastics team, and given Bryce's accomplishments and abilities as a competitive gymnast he was recruited as a member of the Penn State collegiate team, where he became nationally ranked.

During the summer between sophomore and junior year at Penn State, Bryce returned home to Ohio for summer break. A lively 20-year old, he reconnected with his friends, resumed work as a counselor at the local summer camp and regional gymnastic competitions.

On an average day, working at the summer camp, Bryce was pressured by campers and counselors to perform a complex beam move on an old suspended log. Although moderately unfamiliar with this move, Bryce accepted the challenge. During the demonstration, Bryce fell off the log. When first responders arrived, he was unconscious. Bryce was flown by helicopter to the nearest trauma unit, Cleveland Clinic Akron General, with suspected traumatic brain injury. Bryce's mother was notified of the accident by his manager at the summer camp, and immediately notified his father. The family rushed to the hospital, unaware of Bryce's true condition and in fear that he would die before they arrived. The family was informed later by those who witnessed the accident, that the complex triple spin Bryce had been attempting to demonstrate was not one that anyone had ever seen someone complete successfully.

Bryce was in a coma for 9 days. On the 10th day Bryce showed signs of minimal awareness and consciousness. At first, he was not able to speak and when his speech did eventually return, Bryce showed minimal long term recall. He was unable to remember his own name, and doubted whether he and his family members were related. At one point, when asked his own name, Bryce replied "Nick, I don't know why everyone is calling me Bryce."

Bryce did not have a severed spine, however he suffered traumatic brain injury, diagnosed by computed tomography (CT) as a Diffuse Axonal Injury (DAI). DAI is one of the most frequent types of brain injury, and also one of the most disastrous. After three weeks at Cleveland Clinic Akron General, Bryce was discharged to a traumatic brain injury rehabilitation unit.

Given Bryce's vibrant social and academic history, his family appeared mostly in denial and generally unwilling to discuss his current functional status and prognosis with medical personnel. At the rehabilitation center, Bryce participated in his program as scheduled. When weekends arrived, and no therapy services were scheduled, Bryce's parents would force him to perform prescribed strengthening exercises and tasks to improve his brain function at the bedside. Bryce had a family member with him every single day. His mother would help bathe and dress him in the early mornings and his father would assist him in exercise each day following physical therapy (PT), occupational therapy (OT) and speech language therapy (SLT). Due to the injury, Bryce had limited strength and function in his arms and legs. It was his family working with him that allowed him to ultimately regain normal mobility. Eventually, Bryce was able to stand and take small steps with moderate assistance.

After six months at the rehabilitation center, Bryce's mom wanted to bring him home. At this time, the rehab center, nursing, and therapy staff was the only home that Bryce could recall. Initially, the rehab staff challenged Bryce's family, explaining that this would prolong any and all recovery Bryce had the potential to gain. Nonetheless,

Bryce was discharged home under the care of his mother and father. He attended intensive PT, OT and SLT for physical and cognitive rehabilitation for 22 months.

Although Bryce will never be a competitive gymnast his dream is to be able to work in a gym as a coach, helping young children to grow their passion.

Guiding Questions:

1. Considering your professional scope, describe to your interdisciplinary group how you might assist Bryce?
2. Now, deliver your professional elevator speech to your group members, as though you were speaking with Bryce and his family.
3. Considering the ethics and beliefs of your professional discipline, what might you have changed in regards to Bryce's healthcare trajectory?
4. Choose 1 healthcare profession other than your own and discuss how you might collaboratively approach Bryce's care.

This case vignette has been adapted by the Interprofessional Education Committee at Monmouth University, 2019.

APPENDIX C: Mock Course Syllabus

Course: Introduction and Foundations to Interprofessional Education
Semester/Year: Ongoing
Credit Hours: 1 credit
Day/Time: TBD
Course Faculty: Marisa Hart, MS, OTR/L, PTA

Office Hours: Available by appointment
Phone: 315-445-5485
E-Mail Address: hartmaa@lemoyne.edu

Pre/Co-requisites:
Entry into graduate healthcare program.

COURSE DESCRIPTION:
Students will dynamically engage in learning with, from and about other health profession students on issues surrounding the quadruple aim of health care. Content will address topics aimed to improve healthcare outcomes, the patient experience, and the clinical experience, while lowering healthcare costs.

In addition to course content, students will collaborate weekly on a client case scenario. Students will work in small interdisciplinary groups to address questions relevant to their own professional scope, as well as their group members. Teams will collaboratively communicate to address the quadruple aim, while determining the best course of action for their client.

REQUIRED TEXTS & READINGS:

No assigned textbook. Required reading will be supplemented through current editorials, relevant news reports and updates to healthcare policy, and interdisciplinary peer-reviewed journal articles.

COURSE GOALS:

The goal of IPE is for students to learn how to function in an interprofessional team and carry this knowledge, skill, and value into their future practice, ultimately providing client-centered care as part of a collaborative team, focused on improved client outcomes (Buring et al., 2009).

COURSE OBJECTIVES:

Course Objectives	Teaching/Learning Activities
Understand the process and development of a collaborative interdisciplinary team.	Synchronous/ Asynchronous Lecture Assigned readings Discussion Analysis of case studies
Establish collaborative communication by: (1) Creating a "*safe space*" to share (2) Develop effective team communication strategies (3) Actively listen to team members	Synchronous/ Asynchronous Lecture Assigned readings Discussion Interpretation and analysis of case studies
Understand and respect the roles, responsibilities and scope of practice of one's own profession and of other healthcare professions.	Synchronous/ Asynchronous Lecture Assigned readings Discussion Interpretation and analysis of case studies
Recognize the impact of interdisciplinary teamwork on client-centered practice	Synchronous/ Asynchronous Lecture Assigned readings Discussion Interpretation and analysis of case studies

TEACHING/LEARNING ACTIVITIES:

This course uses a variety of teaching strategies to assist students in learning course content. Both synchronous and asynchronous instruction will be provided through a virtual platform. Teaching and learning activities will include short lecture, reading, discussions, analysis & practice with case studies, and team presentations. Students will demonstrate learning through active participation in discussion groups, completion of

selected learning activities, and completion of electronically submitted graded assignments. This course is oriented toward the maturity level of graduate students and adult learners. Students are expected to attend virtual class sessions prepared to actively participate, share relevant work and life experiences to help illustrate the application of course related information.

LEARNING RESOURCES:

The CANVAS course site is an essential component of this course.

Students will find a copy of the course syllabus, detailed daily format of coursework, additional-learning resources including power points and handouts, and complete assignment instructions and grading rubrics. Each unit of the course will be uncovered as the course progresses.

In addition, students will use the CANVAS site to engage in class discussion and to submit completed learning assignments.

Please check the CANVAS site frequently for updates to the course, including the addition of course related materials. All such changes to the course will be communicated through CANVAS.

COURSE ASSIGNMENTS:

This is a brief summary of the individual and group work evaluated in this class. Complete details of assignments, and Grading Rubrics when applicable, will be posted on CANVAS.

Description	**Due Date**	**Weight**
Case Based Interdisciplinary Team Discussion		
Week 1	TBD	
Week 2	TBD	
Week 3	TBD	50%
Week 4	TBD	
Week 5	TBD	
Week 6	TBD	
Collaborative Interdisciplinary Team Presentation	TBD	25%

Course Participation and Professional Behavior Assignment	TBD	25%
Total:		100%

GRADING POLICIES:

This course will be graded in accordance with the Le Moyne Occupational Therapy grading scale:

A	95-100%	B-	80-83%
A-	90-94%	C+	75-79%
B+	87-89%	C	70-74%
B	84-86%	F	69 & below

COURSE POLICIES AND PROCEDURES

As the instructor of this course, I reserve the right to alter course requirements if necessary. Students will be informed of any alterations, through CANVAS announcements as soon as possible.

1. **Grades** will be recorded at the end of the semester. All requirements and components must be completed before the final course grade is submitted. All assignments must be completed and received by the course faculty by the last scheduled class period. Except in the case when written approval for an extension or incomplete has been granted, any assignment submitted after the last scheduled class will receive a grade of zero.

2. **Attendance**: Attendance in this hybrid - course is based on the timely submission of weekly discussions. Weekly lessons require the submission of one or more discussions. The student is responsible for pressing the 'submit' button each time an assignment has been completed. If the page indicating that the assignment has been submitted does not appear, then the assignment has not been submitted.

3. **Participation**: Discussion of readings and review of additional material to enrich the learning experience can be expected. Students who do not complete assignments and readings are, therefore, unprepared for class will be notified through their college e-mail. A pattern of repeated unpreparedness could result in a failing course grade.

4. **Professional Involvement**: Learning occurs best in an environment that is respectful to both student and faculty needs. Creating this environment is

achieved through self-direction and self-discipline. This is *professional* practice course. Course instructors aim to promote a positive educational environment, where all students can realize and reach their learning potential. In turn, it is expected that students within this course students emulate this professionalism by treating peer and instructors alike, with honesty, integrity and respect.

5. **Extensions**: It is recognized that events may necessitate changes to the best-laid plans. Therefore, any student who is unable to complete assignments by the set due date, for reasons that are beyond their control, may request an extension prior to the due date. The request must be **in writing,** and include the **expected submission date and time**. Only written requests that have been signed by both the student and faculty constitute an approved extension. Except in the case of a documented medical illness or family crisis, the principle of equity and personal responsibility suggests that there be some cost to students who request extensions. Therefore, 3% will be deducted from the earned score **per calendar** day that the assignment is submitted beyond the syllabus due date (i.e. 2 day extension -6%). Assignments submitted after the agreed date and time will receive a 0% ("F") grade.

6. **Incompletes**: In extreme circumstance, a student may request an "incomplete" on an assignment. A request for an "incomplete" must be in writing and include the time and date when the assignment will be submitted. Only written requests that have been signed by both the student and faculty constitute an approved incomplete. The instructor will retain the original and the students will receive a copy. The maximum grade for an assignment for which an "incomplete" has been approved is a "B." Note: if an extension is in effect prior to the request for an incomplete then this will also be deducted from the earned grade (i.e. assigned earned grade 85% minus pre-existing extension –5%, final assignment grade 80%). In the event of an extended College approved excused absence, upon return to classes the student will meet with the course instructor to determine appropriate due dates for assignments. Assignments submitted after the agreed time and date will receive a 0% ("F") grade.

7. **Late assignments**: Throughout the semester with a timely submission. All submissions must be turned in by the submission **date** and **time** posted on Canvas. Assignments that are not submitted in a timely manner will have a grade reflection of 5% loss from the earned score per calendar day up to 3 days. If greater time is required, an extension must be requested prior to the due date, otherwise a grade of 0 will be entered for the assignment. (If an assignment is due at 8:30, and you submit at 8:31, your score will be reduced by 5%)

   This policy does not apply to the Professional Behaviors assignment. All late submissions for this assignment will be given a zero grade.

8. **Written Reports**: Written assignments will be evaluated for clarity of thought, conciseness, thoroughness and evidence of original student work. Written work will meet American Psychological Association (APA, 2010) 7th edition guidelines. Students will be required to submit work electronically on Canvas.

9. **Copyright Restriction:** Materials used in connection with this course may be subject to copyright protection under Title 17 of the United States Code. Under certain Fair Use circumstances specified by law, copies may be made for private study, scholarship, or research. Electronic copies should not be shared with unauthorized users. If a user fails to comply with Fair Use restrictions, he/she may be liable for copyright infringement.

10. **Changes to the syllabus and schedule**. The course instructor reserves the right to make changes to the syllabus and schedule. Students will be notified through a Canvas announcement, if changes are made.

11. **Snow days**: In the event that LMC college is closed due to weather, students may still be responsible for submitting assignments in Canvas if due on that day. Students are to check Canvas for any updates or assignments that may not be in the syllabus due to the cancellation of school.

12. **Communication**: All communication will occur through Canvas announcement. Please check regularly and be sure your notification settings are up to date, in order to ensure correct information is received. Failure to check Canvas announcements is not an excuse for missing disseminated information.

13. **Accommodations**: The Office of Disability Support Services provides the following statement for inclusion in course syllabi:

    SPECIAL NEEDS: If you have a disability and need accommodations, reach out to the course instructor through email, within the first two weeks of the semester to review your accommodation sheet. You should meet with someone from the Office of Disability Support Services each semester to review your documentation. The Office is located in the Library (1st floor; 445-4118; dss@lemoyne.edu)

14. **Observance of religious holidays**: : Inform students of their rights and responsibilities under the College's policy on the observance of religious holidays. For details, see the "College Policies and Procedures" section of the Student Handbook.

15. **Tutoring**: Tutoring @ LeMoyne provides the following statement for inclusion in course syllabi:

Tutoring @ Le Moyne, located in the back of the library, on the first floor, is open M-Th 9am-9pm, F 9am-4pm, and Sun 3pm-9pm. Peer tutors are available for most subjects. To sign up, visit https://lemoyne.mywconline.com/ to create an account and log in to select the current semester's schedule. If you need tutoring for a subject not listed, please email tutoring@lemoyne.edu. Tutoring is free for all students and is available from the second week of classes through the last day of classes.

16. **Academic standards**: Students are expected to observe at all times the highest ethical standards as members of the academic community. Any form of dishonesty makes a student liable to severe sanctions, including expulsion from the College. For details, see the "Academic Standards" section under Academic Information in the General Information area of the College catalog or in the Community Standards area of the Student Handbook.

17. **Title IX**: The College's Title IX coordinator provides the following statement for inclusion in course syllabi:

    Students who believe they have been harassed, discriminated against, or involved in sexual violence should contact the Title IX Coordinator (315-445-4278) for information about campus resources and support services, including confidential counseling services.
    Le Moyne faculty are concerned about the well-being and development of our students and we are available to discuss your concerns. As faculty, we are obligated to share information with the College's Title IX coordinator to help ensure that the student's safety and welfare is being addressed, consistent with the requirements of the law. These disclosures include, but are not limited to, reports of sexual assault, dating violence, domestic violence, and stalking. Please refer to Le Moyne's Assault Resources webpage (https://www.lemoyne.edu/Compliance/Sexual-Misconduct-Resources) for contact information and further details.

18. **Personal problems**: Students who encounter personal problems of any kind, especially problems that might affect their academic performance, are encouraged to contact the Wellness Center for Health and Counseling (https://www.lemoyne.edu/Student-Life/Student-Services/Wellness-Center). The Center is located in Romero Hall; appointments may be arranged by phone at 445-4195. The Center provides both individual and group counseling on a strictly confidential basis.

SCHEDULE OF TOPICS

Date	Topics	Readings	Discussion Topics
W1	**Synchronous Virtual Lecture** 1. Course Introduction 2. Interdisciplinary team assignments 3. Interprofessional team process 4. Unique client centered care • Experience • Values • Needs • Preferences	1. Learning outcomes for interprofessional education (IPE): Literature review and synthesis 2. Attitudes toward interprofessional education: Comparing physician assistant and other health care professions students	**Discussion 1** 1. Getting familiar with virtual and online discussion platform 2. Individual introduction 3. Defining your own healthcare profession 4. Understanding other healthcare professions 5. As a team: Brainstorm appropriate team process and meeting procedure. Consider the way the team will: • Work on a task • Exchange client information • Clarify client values, beliefs and preferences • Address client goals • Evaluate client care plan • Ensure follow-up
W2	**Getting to know your client** 1. Become familiar: • Social history • Medical history • Active medial conditions	1. Know your client and know your team: A complexity inspired approach to understanding safe transitions in care	**Discussion 2** 1. As a team: • Create a problem list for your client. • What types of psychosocial supports are currently available for your client? • What values and/or beliefs may you assume are important to your client? • Use professional documents to identify 3-5 areas that would be important to address through either client-family education or direct intervention.

			• Identify 2 long-term and 2 short-term goals for collaborative intervention • What evidence can you find to support intervention
W3	**Improving the patient experience** 1. Improving personal awareness 2. Improving interpersonal skills • Courtesy • Listening 3. Communicating with and explaining to the client 4. Collaboration with the client	1. Improving the patient experience through provider communication skills building 2. Inside the clinic: Health professionals' role in their clients' psychological rehabilitation	**Discussion 3** 1. As a team: • Discuss how you will approach your client's immediate family members. What types of information will you give them at this time? Where will you find this information? • How might you educate yourselves about cultural factors, which may be important for your client's care or recovery? • Describe how you might collaborate with your client to identify applicable coping strategies. • Your client's spouse has expressed desire to be an integral member of care. How will the team approach this situation? • Comment on the positive and negative aspects this could bring to the plan of care.
W4	**Improving the clinical experience** 1. Enhancing meaning in work 2. Preventing burnout syndrome 3. Improving clinician well-being 4. Creating behavioral	1. Enhancing meaning in work: A prescription for preventing physician burnout and promoting client-centered care 2. Building resilience for palliative care clinicians: An approach to burnout prevention based on	**Discussion 4** 1. As a team: • Predict how staff might react to your client's personality. Give 2 reactions that are positive and 2 that are negative. Collaborate to discuss how you might prevent negative response. • How might it make you feel to know that your client is

	changes in the workplace	individual skills and workplace factors	annoyed with your attempt to help her? • List 3 innovative program ideas, applicable to this setting, which will promote health and wellbeing in healthcare providers. 2. Now choose 1 program idea, and develop a flyer to market it. The flyer should include: • Program description • Intended population • Program purpose • Frequency • Location • Evidence to support
W5	**Lowering healthcare costs** 3. Innovations in medical technology 4. Need for scientific evidence 5. Clinician productivity 6. Emphasis on healthcare prevention	1. A role for entrepreneurs: An observation on lowering healthcare costs via technology innovation 2. Lowering the cost of health care: The west health initiative	**Discussion 5** 1. As a team: • What type of health prevention material would you give to your client? • What, if any, evidence can you find to support this material? • Develop a mock education material to fit this description (brochure, flier home program etc.) • Would you recommend any assistive technology to assist your client? • What, if any, evidence can you find to support recommendations? • Identify 2 websites, which will benefit your client? Why did you choose these?
W6	**Improving healthcare outcomes** 1. Therapeutic relationship	1. Patient - centered care: Improving healthcare outcomes	**Discussion 6** 1. As a team:

	2. Coordination of delivery of care 3. Ensure continuity of care	2. Interprofessional collaboration: Effects of practice-based interventions on professional practice and healthcare outcomes 3. Interprofessional primary care team meetings: A qualitative approach comparing observations with personal opinions	• Describe how the therapeutic relationship has evolved? • What specific areas of this relationship have promoted the overall quality of care? • When considering discharge, what would you want to have in place, to ensure continuity of care? • If your client's insurance does not pay for recommended therapies, interventions or equipment, what alternatives are there? 2. Reflect on Wk 1 description of team meeting process. • Describe how the process may have evolved, now that you understand the multidimensional aspects of an interprofessional, collaborative team approach to care.
W7	**Virtual Professional Team Presentations**		

**The instructor of this course reserves the right to make changes to this schedule of topics.

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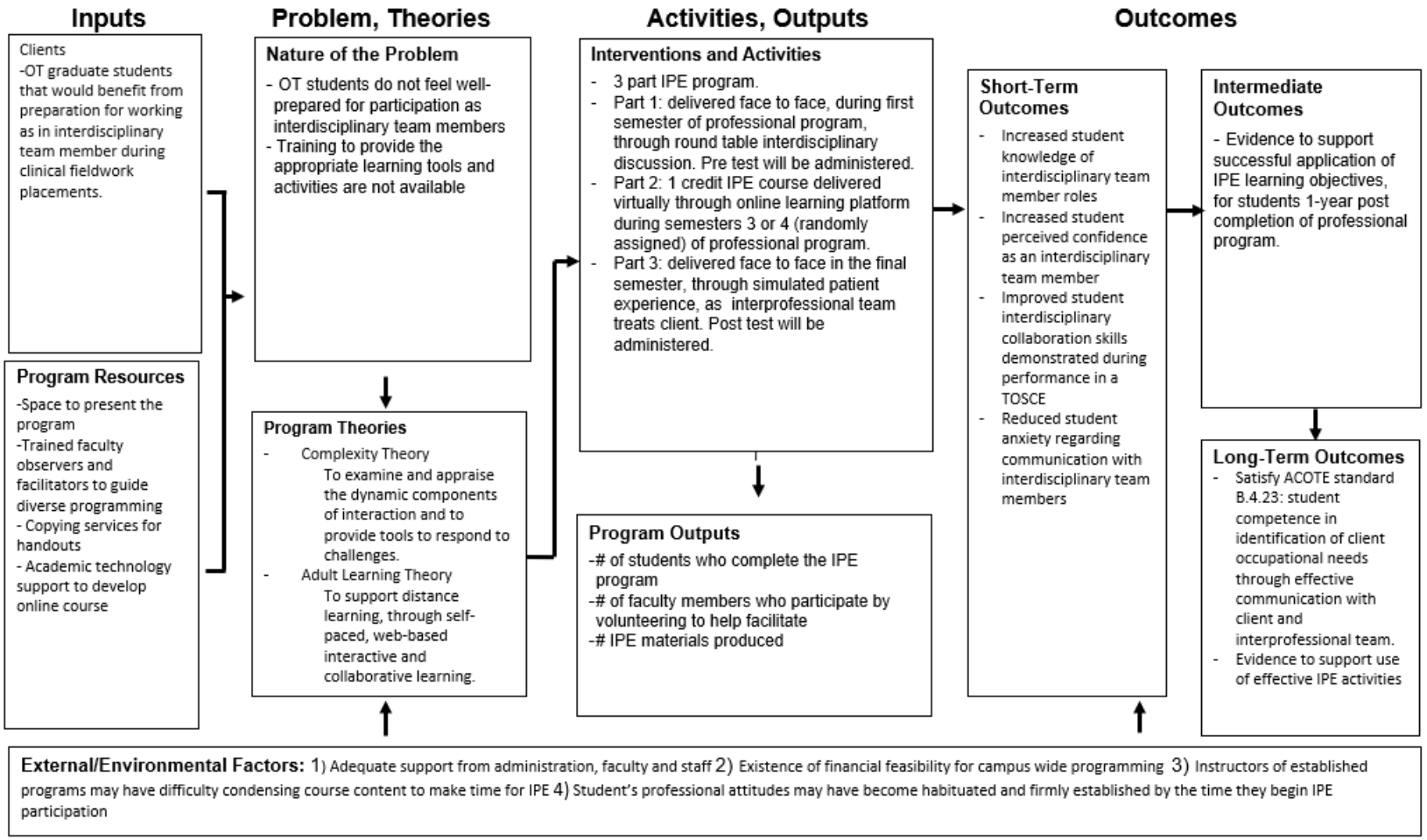
APPENDIX D: TOSCE Rubric

Competencies	Team Rating		
	Below Expected	At Expected	Above Expected
Communication (of team with patient) Assertive communication Respectful communication Effective communication	1	2	3
Collaboration Establishes collaborative relationships Integration of perspectives Ensures shared information	1	2	3
Roles and Responsibilities Describes roles and responsibilities Shares knowledge with others Accepts accountability	1	2	3
Collaborative patient – Family Centered Approach Seeks input from patient and family Shares with patient and family Advocates for patient and family	1	2	3
Conflict Management/Resolution Demonstrates active listening Respectful of different perspectives Works with others to prevent conflict	1	2	3
Team Functioning Evaluates team functioning and dynamics Contributes effectively Demonstrates shared leadership	1	2	3
Global Rating Score Provide a single rating of the team's performance	1	2	3

APPENDIX E: Full Logical Model



APPENDIX F: Fact Sheet

BOSTON UNIVERSITY

Be prepared to sit at the table: A campus-wide interprofessional education program

Marisa Hart, OT, OTR, MS, PTA
OTD Candidate

Introduction to Problem

• Interprofessional education (IPE) is defined as an educational effort that "occurs when health professionals from more than one profession learn about, from, and with each other" (Darlow et al., 2016, p. 355)

• IPE initiatives improve academic outcomes in areas including professionalism, ethical and clinical decision making, role competency, ability to delegate, awareness of and collaborative team communication and an overall client-centered approach to care (Riskiyana et al., 2018).

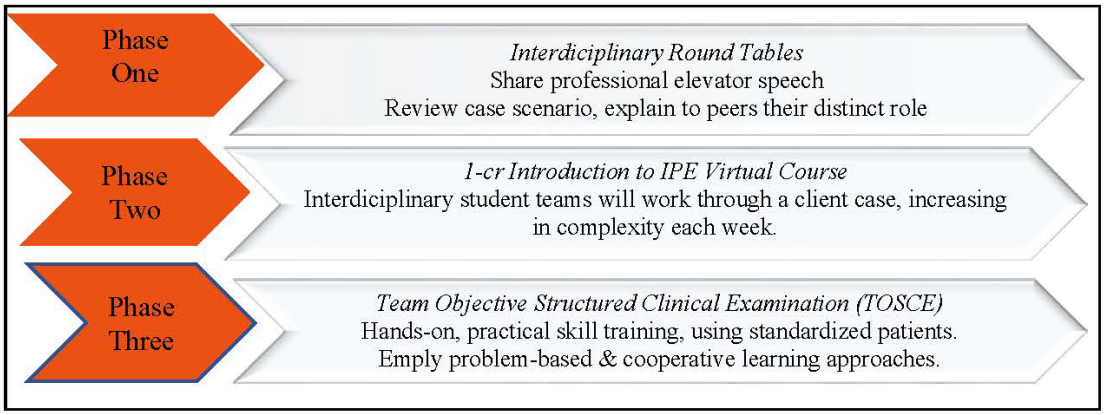
• Despite literature supporting the justification for implementation of evidence- based IPE programs across institutions nationally, professional healthcare programs lack consistency and follow through.

• Lack of *best practice* in IPE may result in a future clinician with limited insight into the scope of their professional role, who isless prepared for interprofessional team collaboration, leading to disjointed communication efforts and an ultimate increase in healthcare costs (de Vries- Erich et al., 2017).

Intended Recipients:

• Occupational therapy, as well as all professional healthcare students within the Purcell School of Professional Studies at Le Moyne College in Syracuse New York will benefit.

Summary of the Program



Theory and Evidence-Base

Complexity Theory

- Recognizes a continuous interrelation of complex components (Sargent, 2009).
    - Represented by the required skill set of the interdisciplinary healthcare team member and the surrounding context is the chosen occupational therapy practice setting.
    - Combined, componants will substantially impact students' behavior, and therefore their perceived preparedness.

Knowles' Adult Learning Theory

- Allows opportunity for student to gain a broad interdisciplinary understanding of themselves and their peers (Aldrich & Peters, 2019).
    - Promotes instruction in content applicable to the adult (Halpern & Tucker, 2014).
    - Leads to deeper understanding and ability to apply core concepts, critical for effective interprofessional team collaboration, within appropriate contexts (Aldrich & Peters, 2019).

Impact on Future Occupational Therapy Practice

• Without *best practice* in IPE programming, healthcare education will lack evidence to support use of effective activities to adequately prepare students for a collaborative team-based approach to care.

• Awareness of learning tools and/or activities which students perceive to be most effective in preparing them for participation as an interdisciplinary team member, addresses the gap in knowledge and experience of interdisciplinary healthcare educators.

• This three-phase IPE program is a theory-drivien, evidence-based model curriculum which is designed to effectively address the shift from traditional healthcare service delivery to an integrated, collaborative and client-centered approach to care (Rishel & Hartnett, 2017).

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APPENDIX G: Executive Summary

Introduction

Modern day healthcare landscape requires consistency in effective interdisciplinary team collaboration and client-centered care. Mu et al. (2004) emphasizes, healthcare professionals are not consistently trained to understand the complex contributions of each discipline on a modern collaborative healthcare team, promoting preservation of traditional roles and territoriality concerns. Research indicates that interprofessional education (IPE) initiatives improve students' interprofessional collaborative knowledge, skills, and behavior, leading to an overall increased preparedness as an interdisciplinary team member (Riskiyana et al., 2018). In addition to improvements in student knowledge and skill set, IPE initiatives aim to improve modern day healthcare by promoting regularity in communication and practitioner follow through in order to improve client outcomes (de Vries-Erich et al., 2017). Supportive evidence-based literature, along with steady follow through of IPE initiatives, are critical in order to teach the skills required to promote collaboration and communication amongst diverse interdisciplinary healthcare teams. However, limited evidence supports *best practice* in IPE program design, development and implementation. This doctoral project aims to address this gap in evidence-based literature.

This doctoral project had a centralized focus on designing, developing and implementing a three-phase campus wide IPE initiative for professional level healthcare students. Theories and evidence-based literature were reviewed from higher education, occupational therapy and other healthcare literature, in order to gain insight into what

types of IPE programs exist, which teaching and learning strategies were most effective, and what were the most desired student learning outcomes across healthcare professions. What follows is a description of: (1) the theory and evidence which contributed to the design and development of this IPE program; (2) the three-phase IPE program; and (3) the implications of IPE on professional level healthcare education, including occupational therapy.

Project Overview and Key Findings

Previous studies on interprofessional program design, development and implementation largely examine healthcare student reflections on interactive components of the experience. Additionally, literature broadly disseminates measurement of student progress toward outcomes associated with interprofessional education. Instead, this project intends to: (1) promote perceived preparedness as interdisciplinary team members in master occupational therapy students; (2) produce evidence to support use of effective IPE activities as a method to adequately prepare occupational therapy (OT) students for an interdisciplinary team-based approach to practice; and (3) understand what learning tools and/or activities OT students perceive to be most effective in preparing them for participating as an interdisciplinary team member. The methodology used during program development was selected purposefully, following critical review of evidence and published literature from higher education, occupational therapy and other healthcare journals.

Theories to facilitate adult education (i.e., Knowles' Adult Learning Theory)

(Aldrich & Peters, 2019) and interdisciplinary system organization theories (i.e., Complexity Theory) (Sargent, 2009) were examined and selected to guide this project. Knowles' Adult Learning Theory was used to guide planning and development of the three-phase program, in order to facilitate incorporation of learner self-concept and role competency (Aldrich & Peters, 2019), promote instructor acknowledgement of the student's life experience (Halpern & Tucker, 2014) and ultimately to maximize IPE student learning outcomes. The Complexity Theory, which examines and appraises the dynamic components of interaction, was used to provide tools to respond to challenges that present during program implementation (Barr, 2013). The framework recognizes the continuous interrelation of complex components which make up healthcare practice and interprofessional team interaction (Barr, 2013), and was used during program evaluation to guide examination of how a student within a professional program, such as occupational therapy, may learn, adapt and change in response to interprofessional education exercises (Sargent, 2009). Consideration of both frameworks is necessary in order to integrate evidence-based teaching approaches, while building this three-phase campus-wide interprofessional education program.

Next, evidence from literature including, allied health education, health education and general education literature were reviewed, in order to design the program. This was completed in two phases. First, the interprofessional education literature was searched to reveal what is already known about use of IPE in professional level healthcare education. Generally, researchers agree that despite literature indicating the need for IPE within higher education, institutions continue to struggle with prioritization of programming and

accountability in the provision of standardized curricula (Clark, 2012; Cullen, Fraser & Symonds, 2003; de Vries-Erich et al., 2017; Dosser et al., 2001; Long et al., 2014; Riskiyana et al., 2018; Virant-Young et al., 2014; Wilson et al., 2012) and it remains unclear, as to the most effective strategy to train professional healthcare students to be competent in a collaborative interprofessional team-based approach to client care (Alexander et al., 2015; Dosser et al., 2011; Michalec et al, 2017; O'Neil-Pirozzi et al., 2019; Polti et al., 2011; Shoemaker et al., 2011; Testa et al., 2018; Wilson et al., 2012). The search revealed evidence supporting a diverse set of teaching and learning strategies, however none to justify *best practice* in IPE.

In order to gather more information about effective interprofessional programming, an investigation into supportive evidence for *best practice* in IPE was conducted through the allied health education, health education and general education literature. Generally, researchers agree that the implementation of IPE programming along the continuum of professional healthcare education will promote learning of the necessary skill set required to provide a team-based, holistic approach to patient care (MacDonald et al., 2011; O'Hara et al., 2018; O'Neil-Pirozzi et al., 2019). In addition, embedding learning opportunities into professional level healthcare curricula, while placing high emphasis on leadership and advocacy, may be associated with observable behaviors in professional healthcare students (Bolesta & Chmil, 2014; Bridges et al., 2010; Jones & Phillips, 2016; Rishel & Hartnett, 2017; Stanley & Stanley, 2018).

A three-phase, campus-wide interprofessional education (IPE) program was designed to include these *best practice* elements. The first phase consists of in-person

round table interprofessional case-based learning and discussion. Phase two includes a one-credit introduction to interprofessional education and development course, and finally in phase three, a hands-on practical skill training and measurement of competency.

Recommendations for Program Implementation

Program specifics

Phase one, includes interdisciplinary round table assignments, where students will begin by sharing their professional elevator speech, and expand on the scope of their professional role. Next, students will be assigned a written client case scenario in which they will have to read and then verbalize where and how their profession might assist the team in facilitation of positive patient outcomes.

Phase two includes a one-credit, introduction to interprofessional education and development course, intended to be delivered via a virtual platform. Within interdisciplinary assigned groups, students will work through a client case, increasing in complexity each week. The interdisciplinary student healthcare team will work to develop the communication skills necessary to provide a holistic, team-based approach to evaluation, with the intention of positive client outcomes.

Phase three challenges students' hands-on practical skill training and includes a measurement of competency through use of a Team Objective Structured Clinical Examination (TOSCE). Within assigned interdisciplinary healthcare teams, students will be provided a completed evaluation for a standardized client. The student healthcare team will then respectfully communicate to determine how to intervene appropriately, in order

to promote health and prevent further disability or disease.

Target audience

Occupational therapy (OT) graduate students will directly benefit from this educational program, which will prepare them for working as an interdisciplinary team member during clinical fieldwork placements. Additionally, professional healthcare students including those enrolled in the physician assistant (PA) and graduate nursing programs, including family nurse practitioner (FNP) will benefit.

Evaluation

Methodology to collect qualitative information will include administration of pre-tests prior to phase one, where students will be asked to complete an online survey to rate their current level of confidence using a 1 to 10 scale in areas described in the American Occupational Therapy Association's (AOTA) fieldwork performance evaluation (AOTA, 2002). Post-testing will be used following phase three, with open-ended questions designed to gather a comprehensive, holistic, and contextual understanding of student experiences with the program, and particularly the learning tools or activities they perceive to have been most effective in preparing them for participation as an interdisciplinary team member.

Dissemination

Dissemination outcomes for this doctoral project aim to share evidence-based outcomes associated with students' perceived preparedness as interdisciplinary team

members, following a three-phase IPE program, in order to promote *best practice* in program choice. Long-term dissemination outcomes include evaluation results which will contribute to occupational therapy and other healthcare professions to substantiate *best practice* in IPE. Short-term dissemination outcomes intend to advance understanding of student preferences surrounding IPE activity choices, and perceived preparedness as an interdisciplinary team member. Additionally, to inform professional healthcare educators, including occupational therapy instructors, regarding practicality and versatility of a particular IPE activity or tool.

In-person dissemination of program evaluation results will occur mainly through professional conferences, in which additional program funding must be considered. For this doctoral project, dissemination will occur through poster presentations at two annual professional conferences. Journal publication will also be utilized for dissemination of program outcomes.

Funding plans

Two budgets are included in this funding plan. the first budget is for program implementation costs and the second for dissemination. Program outcomes are expected to be disseminated within 12 months following completion of this project, as that is the anticipated time frame it will take to run the three phases described within this program.

Select members of the institutional Interprofessional Education Steering Committee, namely a faculty or administrator from each healthcare discipline, are committed to assist in program development and implementation, as part of their required

service to the college. Workload demands will fall under a full time faculty member's workload and the institution will hire an adjunct to cover the workload which the full time faculty member can no longer teach as a result of instruction and facilitation of the IPE program. Additionally, two to three standardized patients (SP) are required annually to be used during phase three of the IPE program, which includes the TOSCE. Costs associated with programming, as described, will ensure professional implementation of an evidence-based model curriculum, while maintaining sustainability.

General Conclusions

In summary, this three-phase interprofessional education curriculum provides one example of a program, which promotes learning of the collaborative skill set necessary to work on an effective healthcare team, for professional healthcare students, through an evidence-based approach. Program evaluation outcomes ultimately intend to use evidence to establish the design of IPE exercises and promote widespread use of EBP within professional level health education. Additionally, program outcomes aim to advance the understanding of student preferences surrounding IPE activity choices, and achieve interprofessional student learning which supports provision of the skill set necessary, to effectively serve as a collaborative member of an interdisciplinary team.

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